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7 The Honorable Robert S. Lasnik
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UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

MCKENNA DUFFY and MICHAEL BRETT,
individually and on behalf of all others
similarly situated,

Plaintiffs,

v.

YARDI SYSTEMS, INC., BRIDGE
PROPERTY MANAGEMENT, L.C.,
CALIBRATE PROPERTY MANAGEMENT,
LLC, DALTON MANAGEMENT, INC.,
HNN ASSOCIATES, LLC, LEFEVER
MATTSON, MANCO ABBOTT, INC.,
MORGUARD CORPORATION, R.D.
MERRILL REAL ESTATE HOLDINGS,
LLC, SUMMIT MANAGEMENT
SERVICES, INC., and CREEKWOOD
PROPERTY CORPORATION,

Defendants.

Case No. 2:23-cv-01391-RSL

**FIRST AMENDED CLASS ACTION
COMPLAINT**

JURY TRIAL DEMANDED

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1 Plaintiffs Mckenna Duffy and Michael Brett bring this action on behalf of themselves
 2 individually and on behalf of a class consisting of all persons who leased multifamily residential
 3 real estate units directly from a defendant or co-conspirator from September 8, 2019, through
 4 the present, in the nationwide multifamily housing rental market (hereinafter “the multifamily
 5 market”). Plaintiffs bring this action for treble damages and injunctive relief under Section 1 of
 6 the Sherman Act. Plaintiff demands a trial by jury.

7 I. NATURE OF THE ACTION

8 1. Rental prices across America have reached new levels of unaffordability for the
 9 average American. The U.S. Department of Housing and Urban Development specifically
 10 defines households as “rent-burdened” if they pay more than 30% of their income for housing.
 11 This is because households that pay so much of their income for housing may, according to
 12 HUD, “have difficulties affording necessities such as food, clothing, transportation and medical
 13 care.”¹ According to 2023 studies, the average American renter is now cost burdened, with the
 14 typical renter now paying more than 30% percent of their income for housing.² This is the first
 15 time this has occurred in the more than 20 years that Moody’s Analytics has tracked this metric.

16 2. Unbeknownst to millions of Americans struggling to pay rent, Landlord
 17 Defendants³ are using a coordinated pricing algorithm administered by Defendant Yardi
 18 Systems, Inc. (“Yardi”), a property management software company, that is specifically designed
 19 to inflate rental prices. Indeed, the artificial price inflation is in the very name of the algorithm –

20
 21 ¹ HUD, Rental Burdens: Rethinking Affordability Measures (available at
https://www.huduser.gov/portal/pdredge/pdr_edge_featd_article_092214.html#:~:text=HUD%20defines%20cost%2Dburdened%20families.of%20one's%20income%20on%20rent) (last
 22 accessed November 3, 2023).

23 ² The Hill, “The Average American tenant is rent-burdened. Here’s what that means for the
 24 Economy”, February 21, 2023 (available at <https://thehill.com/changing-america/sustainability/infrastructure/3866947-renters-paying-30-percent-of-income-for-housing-crisis/>).

26 ³ Defendants Bridge Property Management, L.C., Calibrate Property Management, LLC,
 Dalton Management, Inc., HNN Associates, LLC, LeFever Mattson, Manco Abbott, Inc.,
 27 Morguard Corporation, R.D. Merrill Real Estate Holdings, LLC, Summit Management
 Services, Inc., and Creekwood Property Corporation, collectively, are the “Landlord
 28 Defendants” and together with Defendant Yardi Systems, Inc., the “Defendants.”

1 “RENTmaximizer.”⁴ For more than a decade, Yardi has repeatedly touted the ability of the
 2 algorithm to generate supracompetitive pricing, emphasizing how Defendant Landlords that use
 3 “RENTmaximizer” are able to increase rents faster than comparable properties. Plaintiffs
 4 challenge this conspiracy among Landlord Defendants and Yardi that has led to ordinary
 5 Americans being overcharged on rental prices that they pay across the nation.

6 3. Landlord Defendants manage multifamily rental properties across the United
 7 States. In a competitive market, these companies would compete on rental prices to attract
 8 renters—that is, they would set rents in accordance with the fundamentals of supply and
 9 demand. When demand surges, rents may go up. When demand falls, property management
 10 companies normally prioritize occupancy rates, and thus increase concessions (e.g., offering a
 11 first month free) to attract renters.

12 4. In the absence of knowledge about competitors’ pricing strategies, property
 13 managers can only make their best educated guesses and set their prices at optimal positions—
 14 usually a bit lower than what is offered by competitors—to attract renters in the market. If a
 15 lessor wants to take a chance to raise rents regardless of market conditions, other competitors
 16 will soon take that lessor’s business away by listing their units at competitive prices.

17 5. Yardi, together with the Landlord Defendants, has unlawfully solved this
 18 problem with a product originally called “RENTmaximizer.” Launched in 2011,
 19 RENTmaximizer is an algorithmic pricing tool marketed to lessors that is intended to
 20 “automate” lessors’ “rental pricing process” and thus help “multifamily property managers
 21 maximize rental income” by “increasing . . . revenue by 3 to 6 percent”⁵—that is,
 22 RENTmaximizer effectively outsources the management of rental pricing from a landlord to

23 ⁴ Yardi’s website indicates that “RENTmaximizer” has been renamed “Revenue IQ.” See
 24 “Revenue IQ,” <https://www.yardi.com/products/yardi-revenue-iq/>. The domain
 25 <https://www.yardi.com/rentmaximizer> redirects users to the “Revenue IQ” page, which
 describes Revenue IQ as substantially similar to RENTmaximizer. All references herein to
 “RENTmaximizer” in this complaint also include by reference Revenue IQ.

26 ⁵ See *Yardi Adds Two Revenue Management Experts to its Yardi RENTmaximizer Team*,
 27 Business Wire (June 22, 2011), available at <https://www.businesswire.com/news/home/20110622006700/en/Yardi-Adds-Two-Revenue-Management-Experts-to-its-Yardi-RENTmaximizer-Team>.

1 Yardi itself, which then implements higher prices collectively across a group of landlords.
 2 According to Terri Dowen, Yardi's senior vice president of sales, “[b]y automating rental
 3 pricing that factors in portfolio and market data, RENTmaximizer not only improves rental
 4 income while maintaining occupancy, it simplifies the process by *eliminating rent rate*
 5 *guesswork and traditional sales devices such as concessions and specials.*”⁶

6 6. In other words, Yardi's RENTmaximizer is specifically, and publicly, marketed
 7 as a means to eliminate the discounting that would occur in a competitive market. Landlord
 8 Defendants who agree to use RENTmaximizer understand that its purpose is to foil the
 9 operation of the competitive market. Indeed, in marketing materials, Yardi advertises that
 10 “revenue grows on Yardi”⁷ and that Yardi users “beat the market by a minimum of 2%” and
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24 6 *The Rockbridge Group Increases Rent Revenue with Yardi RENTmaximizer*, Business
 25 Wire (June 21, 2016),
<https://www.businesswire.com/news/home/20160621005024/en/Rockbridge-Group-Increases-Rent-Revenue-Yardi-RENTmaximizer>.

27 7 Yardi, *Revenue Grows on Yardi: RENTmaximizer* (video), (June 19, 2017),
<https://www.facebook.com/Yardi/videos/revenue-grows-on-yardi-rentmaximizer/1501017369961971/>.

1 “gain[] on average more than 6% net rental income.”⁸ Yardi even tells its users: “You manage
 2 your business, we manage your pricing”:

3 Better Results

4 Clients using RENTmaximizer have gained on average more than 6% net
 5 rental income growth while improving occupancy. And, RENTmaximizer
 6 properties consistently beat the market by a minimum of 2%. This
 7 intuitive, transparent pricing system empowers your sales force, provides
 8 clear and comprehensive reporting and promotes adoption throughout
 9 your organization. Leases are priced by the system daily, which allows
 10 for fast adjustment to market conditions and changes in your inventory
 11 and traffic, while adjusting for cost constraints such as vacancy loss,
 12 turnover costs, inventory hold days and lease expiration management.

9 Better Service

10 You manage your business, we manage your pricing. Only Yardi
 11 provides you with a dedicated revenue manager with valuable industry
 12 experience along with your revenue management software. Your
 13 dedicated revenue manager will get to know your business processes,
 14 assets and goals to provide superior support and will work with you to
 15 maximize your returns. And as a RENTmaximizer client, you'll receive
 16 this service and training continuously to promote ongoing success.

17 7. Marketing materials for Yardi’s “Revenue IQ” product—which, on information
 18 and belief, is a rebranded version of RENTmaximizer—echo the same theme, boasting that
 19 lessors can use Yardi’s pricing software to “[w]in at pricing” and “[c]onsistently beat the
 20 market”⁹:

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 26 ⁸ Yardi, *Yardi Multifamily Suite* (2019), available at <https://resources.yardi.com/documents/multifamily-suite-brochure/>.

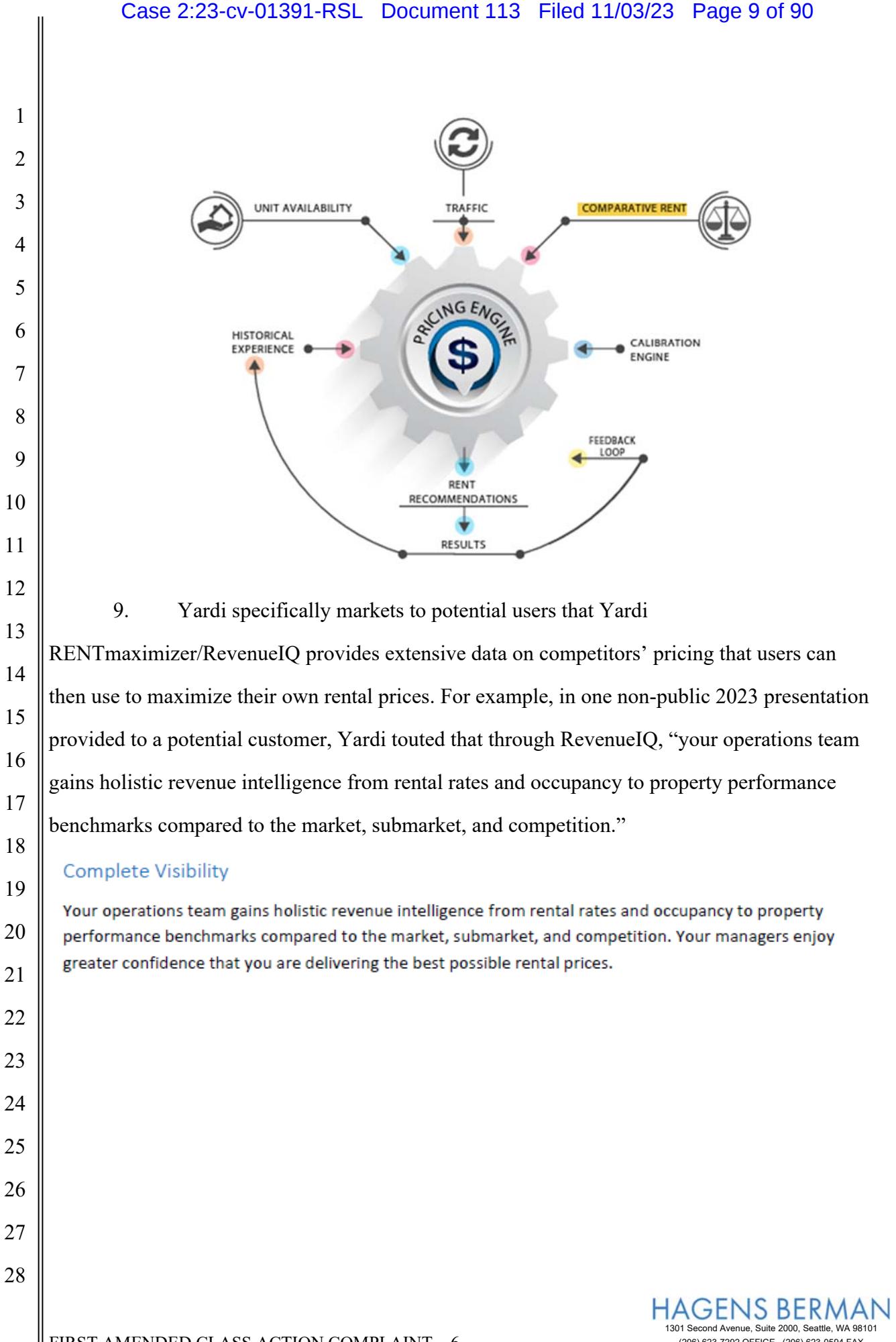
27 ⁹ Yardi, *Revenue IQ*, <https://www.yardielevate.com/multifamily/revenue-iq/> (last visited
 28 Sept. 7, 2023).

Win at pricing using integrated revenue intelligence

- Price new or renewal leases based on business goals, market conditions and inventory
 - Consistently beat the market by utilizing revenue management instead of pricing yourself
 - Enhance strategy and performance with built-in access to nationwide market intelligence

8. According to Yardi’s publicly-available promotional materials, a key input to Yardi’s pricing algorithm, or “engine,” is competitor pricing data. Specifically, RENTmaximizer asks users to input their data, such as rental rates and occupancy, into its system; meanwhile, the system automatically incorporates market-specific information on “comparative rent” to, in Yardi’s words, give users “accurate and timely information regarding your market—including every comp and how you compete”¹⁰—or what it also calls “complete visibility,” including “performance benchmarking” “compared to the market, submarket, and competition”:

¹⁰ Yardi Systems, Inc., *Yardi Elevate* (2020), available at <https://resources.yardi.com/documents/elevate-suite-for-multifamily-brochure/>.



1 10. Yardi also operates Yardi Matrix, a commercial real estate intelligence source.
 2 Yardi Matrix actively collects data from Defendants and other multifamily operators related to
 3 rental prices at multifamily properties across the entire nation. Subscribers to Yardi Matrix
 4 receive rental price information, as well as other data such as short and long-range forecasts of
 5 rent and occupancy at the market and sub-market levels. Yardi publicly advertises the extensive
 6 amount of data available through Yardi Matrix:

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YARDI MATRIX MULTIFAMILY

REAL-TIME PROPERTY DATA
Gain access to patented improvement and location ratings, rental rate, occupancy history and current property manager information.

LOAN DATA
Search for acquisition prospects by loan maturity schedules, lenders, borrowers, loan terms and estimated DSCR/LTV ratios.

TRENDS & FORECASTS
Stay current with monthly national reports, metro reports and quarterly forecasts of rental rates, rent growth and occupancy across markets and submarkets.

NEW SUPPLY PIPELINE
Get insight into new supply pipeline information at the asset, competitive set and market level.

MATRIX EXPERT
Access exclusive aggregated and anonymized residential revenue and expense comps.

yardimatrix.com/multifamily | matrix@yardi.com or (480) 663-1149

YARDI | Energized for Tomorrow

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Yardi Matrix Multifamily 3/2021

1 11. Yardi Matrix also conducts “rent surveys” multiple times annually to collect
 2 current pricing information about rental properties. As part of the rent survey, Yardi employees,
 3 masquerading as potential renters, call apartment community building to collect information
 4 about rents and current rent specials. Yardi itself has acknowledged that information Yardi
 5 collects from rent surveys is used in RENTmaximizer, stating that asking rent adjustments in
 6 RENTmaximizer are based, in part, on “public information collected through surveys.” Yardi’s
 7 public marketing for Matrix explicitly states that Matrix data is incorporated into
 8 RENTmaximizer.

9 MARKET INTELLIGENCE

10 Yardi Matrix provides nationwide intelligence on markets, submarkets,
 11 competition, developments, rents, occupancy and more. This data delivers
 12 accurate indicators of economic trends and performance and helps you price
 13 apartments profitably. When this market-specific data is incorporated with
 14 your RENTmaximizer data, you can accurately benchmark performance and
 15 factor it into rent projections and calculations which enhances your revenue
 16 management strategy and helps boost the performance of individual assets.

17 12. Defendants provide information to Yardi Matrix with the understanding that, in
 18 part, they will receive pricing recommendations from RENTmaximizer that are based on Yardi
 19 Matrix data. CW 6, a former Yardi employee, stated that all Yardi clients – or Voyager clients –
 20 contractually agree to share pricing and occupancy data with Yardi and to allow Yardi to use
 21 “aggregated data” as part of Matrix and RENTmaximizer. CW 6 stated that “when you sign
 22 your contract with them, you agree to give your data, aggregated.” CW 6 stated that Yardi has
 23 “all the data from all of their properties inside Matrix” and that “somebody then buys that data
 24 in the form of RENTmaximizer.” Similarly, CW 7, who worked at Yardi between 2019 and
 25 2021 as a senior account executive, explained that while Yardi’s clients were “very concerned
 26 about sharing their rental rates more than anything,” “[m]ost people appreciated the fact that if
 27 they shared data, they would get data from other clients using things like RENTMaximizer, so
 28 that everybody was benefitting from the data.”

1 13. Leveraging data gathered from RENTmaximizer users as well as comparative
 2 rent, RENTmaximizer's rental pricing algorithm then calculates a "rent recommendation" that
 3 users can—and are encouraged to—automatically adopt. These prices are updated "daily."
 4 Yardi also advertises (as noted above) that it gives lessors "complete visibility" into the market,
 5 providing them with "property performance benchmarking (compared to the market, submarket
 6 and competition)"¹¹:

7 Complete Visibility

8 RENTmaximizer provides holistic revenue intelligence for your operations
 9 team. With this transparent system you'll see everything from rental rates
 10 and occupancy data to property performance benchmarking (compared
 11 to the market, submarket and competition). Prospects and residents
 12 will gain various pricing options, while your managers will enjoy greater
 13 confidence that you are delivering the best possible rental prices.

14 14. Furthermore, Yardi provides RENTmaximizer users "with a dedicated revenue
 15 manager" who works closely with individual lessors to hone their usage of RENTmaximizer by
 16 "get[ting] to know your business processes, assets, and goals to provide superior support
 17 and . . . work[ing] with you to maximize your returns."¹² Promotional materials for Yardi's
 18 "Revenue IQ" product similarly advertise the assistance of "dedicated Yardi expert[s]" who
 19 "help manage pricing" and assist lessors in "[g]et[ting] pricing recommendations and
 20 control[ling] pricing at the property level"¹³:

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 22 ¹¹ *Id.* Similar promotional materials for Yardi Revenue IQ state: "Get visibility into rent
 23 movement and operational performance. *Know your market in real time — including every*
 24 *comp and how you compete.* Daily management reports help you understand pricing changes
 25 and show you upcoming exposure along with traffic and trends. Provide extensive revenue
 26 intelligence for your operations team and give your managers confidence in the rental prices
 27 they offer. With this transparent system you'll see: Rental rates and occupancy data; Pricing
 28 options for prospects and residents; *Property performance benchmarking (compared to the*
market, submarket and competition)." See Yardi Systems, Inc., *Revenue IQ*,
<https://www.yardi.com/products/yardi-revenue-iq/> (emphasis added) (last visited Sept. 7, 2023).

¹² *Yardi Elevate*, *supra* note 10.

¹³ See *Revenue IQ*, *supra* note 9.

Get hands-on support
from a technical
account manager

- Rely on a dedicated Yardi expert to help manage pricing
 - Get pricing recommendations and control pricing at the property level
 - Continuously advance algorithms with an integrated property feedback loop

15. Yardi emphasizes to prospective clients that Yardi's RENTmaximizer/Revenue IQ project will manage pricing for clients who purchase the software. For example, in one non-public 2023 presentation to a prospective client, Yardi stated “[y]ou manage your business; we manage pricing,” while emphasizing at the same time the availability of a “dedicated, experienced revenue manager” who would work with the client along with the software.

Better Service

You manage your business; we manage pricing. Only Yardi offers you a dedicated, experienced revenue manager with your revenue management software. Your revenue manager gets to know your business processes, assets, and goals and works with you to maximize your returns.

16. Revenue managers employed by Yardi help further Landlord Defendants' coordination by facilitating their implementation of the common pricing scheme produced by usage of RENTmaximizer. In particular, Yardi's revenue managers give Landlord Defendants "confidence" in their decisions to charge inflated prices. As Adam Goldfarb, vice president for lessor Manco Abbott, stated in a 2015 press release: "Having a dedicated revenue manager working with us from the Yardi RENTmaximizer team is a huge benefit. If our staff or property

1 owners question any of our rates, we have our Yardi RENTmaximizer expert who can dig
 2 deeper to support our pricing — and that gives our organization and clients great confidence.”¹⁴

3 17. The result of this scheme is that Landlord Defendants outsource their once-
 4 independent pricing and supply decisions to a single decisionmaker, RENTmaximizer, and need
 5 not directly disclose their pricing strategies to each other in order to fix rent prices. Instead,
 6 Landlord Defendants collectively adopt a coordinated pricing strategy implemented and
 7 enforced by Yardi’s RENTmaximizer product. Defendants further understand that the pricing
 8 data they provide to Yardi is used to power the supracompetitive pricing adjustments that
 9 Yardi’s RENTmaximizer provides to their competitors. Yardi also publicly markets the housing
 10 operators who have adopted RENTmaximizer, and publicizes that usage of RENTmaximizer
 11 allows housing operators to charge supracompetitive prices.

12 18. The Federal Trade Commission and Department of Justice’s “Antitrust
 13 Guidelines for Collaborations Among Competitors” emphasize that “[o]ther things being equal,
 14 the sharing of information relating to price, output, costs, or strategic planning is more likely to
 15 raise competitive concern than the sharing of information relating to less competitively sensitive
 16 variables. Similarly, other things being equal, the sharing of information on current operating
 17 and future business plans is more likely to raise concerns than the sharing of historical
 18 information.”¹⁵ These are precisely the types of information Landlord Defendants exchange
 19 through Yardi.

20 19. Lessors have spoken openly and enthusiastically about Yardi’s market-beating
 21 results and ability to take the “guesswork” out of setting rents and imposes “discipline” on
 22 pricing decisions.¹⁶ As Philip Nored, owner and managing partner of lessor HNN Associates

23 ¹⁴ *Manco Abbott Inc. Achieves Rental Growth, Gains Expert Pricing Insight with Yardi*
 24 *RENTmaximizer*, Business Wire (Nov. 10, 2015), <https://www.businesswire.com/news/home/20151110005039/en/>.

25 ¹⁵ Federal Trade Commission & U.S. Department of Justice, Antitrust Guidelines for
 26 Collaborations Among Competitors 15–16 (April 2000).

27 ¹⁶ Economists recognize that pricing discipline, as well as public commentary about the
 28 need for discipline, is evidence of potential coordinated pricing. Jonathan Baker & Timothy
 Bresnahan, *Economic Evidence in Antitrust: Defining Markets and Measuring Market Power* in

1 described it in a 2017 press release, “RENTmaximizer has *taken the guesswork* out of our rental
 2 pricing and lease terms, and boosts pricing performance through an intelligent system of
 3 measurements, fixed factors *and discipline.*”¹⁷ Another has stated bluntly: “[t]hanks to
 4 RENTmaximizer, we have *eliminated all concessions and specials.*”¹⁸ Another has written:
 5 “RENTmaximizer *eliminates the fear factor of exposure* that is a natural concern for property
 6 and regional managers. RENTmaximizer factors in historical and relevant data to assure us that
 7 we will get the traffic and leases we need to meet our revenue goals.”¹⁹

8 20. Other lessors have been even more frank, acknowledging that with
 9 RENTmaximizer, they can “aggressively” raise rents in a way that would have previously been
 10 impossible. For example, Brantley White, the president of lessor Ardmore Residential, a
 11 multifamily housing operator located in North Carolina, stated in a 2016 Yardi press release that
 12 Ardmore was able to raise rents 5-6% since its implementation of Yardi RENTmaximizer in
 13 2016. White explained that “RENTmaximizer has allowed us to *push rents more aggressively*
 14 and takes more human error out of the process.”²⁰ He candidly acknowledged that “[w]e simply
 15 wouldn’t have raised rents that much or that quickly on our own.”²¹

16
 17 Paolo Buccirossi, Stanford Law School, John M. Olin Program in Law and Economics,
 18 Working Paper No. 328 1 (2006). (“If industry participants routinely respond to low prices not
 19 by pointing to lower costs but instead by complaining about pricing breakdowns and calling for
 20 improved pricing discipline, and if such comments in the trade press are commonly followed by
 21 increasing prices shortly thereafter, that evidence could suggest that the participants see
 22 themselves as engaged in coordinated pricing punctuated by occasional price wars.”) (available
 23 at https://www-leland.stanford.edu/~tbres/research/buccirossi_01_ch01_001-042.pdf).

24 ¹⁷ *HNN Associates, LLC Optimizes Rental Pricing Performance with Yardi RENTmaximizer*,
 25 Business Wire (Feb. 17, 2015), <https://www.businesswire.com/news/home/20150217005101/en/HNN-Associates-LLC-Optimizes-Rental-Pricing-Performance-with-Yardi-RENTmaximizer>
 26 (emphasis added).

27 ¹⁸ See *Rockbridge Group*, *supra* note 6 (emphasis added).

28 ¹⁹ *Beztak Grows Rental Income with Yardi RENTmaximizer*, Business Wire (June 16, 2017),
 29 available at <https://www.businesswire.com/news/home/20170616005099/en/Beztak-Grows-Rental-Income-with-Yardi-RENTmaximizer> (emphasis added).

29 ²⁰ *Ardmore Residential Raises Rents 5-6% with Yardi RENTmaximizer*, Business Wire (Apr.
 30 21, 2016), <https://www.businesswire.com/news/home/20160421005001/en/Ardmore-Residential-Raises-Rents-5-6-with-Yardi-RENTmaximizer> (emphasis added).

30 ²¹ *Id.*

1 21. Confidential witnesses echo this and recognize that RENTmaximizer gives
 2 lessors an unfair advantage. For example, Confidential Witness 1 (“CW 1”)²², who worked as a
 3 former leasing consultant for Bridge Property Management, stated that she regularly used Yardi
 4 to set prices for the apartments she managed. Specifically, she would input the square footage of
 5 an apartment, its location, and Yardi’s system would then offer listing prices that she “just went
 6 for” without “question[ing].” CW 1 explained further that Yardi would show comparative
 7 pricing at specific competitor apartment locations and that, in her opinion, this “was not fair for
 8 renters.” She stated bluntly: “It was ridiculous. We were supposed to be helping these people
 9 who couldn’t afford a home. Instead, we were raising rents.”

10 22. Similarly, Confidential Witness 2 (“CW 2”)²³, another former employee at
 11 Bridge Property Management, stated that the prices generated by Yardi were never questioned
 12 and could change daily. He stated that this pricing practice gave “an unfair advantage” to lessors
 13 because they “all know what they should be renting for” by using the same pricing platform.

14 23. Lessors have also explicitly and publicly praised (a) the insight into competitors’
 15 pricing that Yardi provides (i.e., Yardi’s ability to facilitate a direct exchange of current pricing
 16 information between competitors) and (b) the supracompetitive returns it generates—indeed,
 17 much of this praise is found in scores of Yardi press releases touting RENTmaximizer’s
 18 achievements in raising rents for clients in the multifamily market. For example, in a 2016 press
 19 release, Jeffrey Denson, the owner and COO of lessor Dalton Management, stated that Dalton
 20 Management was able to increase rent per unit without losing business to its competitors as
 21 “RENTmaximizer has . . . made Dalton Management better aware of how its properties compare
 22 to the rest of the market,” explaining further that Dalton was “able to raise rents at a property we
 23 thought was keeping up—now we’re getting \$100 more per unit and maintaining occupancy.”²⁴

24 ²² CW 1 worked as a leasing consultant for Bridge Property Management in San Antonio,
 25 Texas, from 2013 to 2014.

26 ²³ CW 2 worked as a leasing consultant for Bridge Property Management in the Seattle,
 Washington area from 2019 to 2020.

27 ²⁴ *Dalton Management Reports Increased Revenue Using Yardi RENTmaximizer*, Business
 28 Wire (May 19, 2016), <https://www.businesswire.com/news/home/20160519005003/en/Dalton-Management-Reports-Increased-Revenue-Using-Yardi-RENTmaximizer>.

1 24. Similarly, a “success story” available on Yardi’s website states that lessor Avesta
 2 had seen “a significant gain [in revenue] after only six months” of implementing automated
 3 RENTmaximizer pricing and that, for every dollar it invested in the RENTmaximizer system,
 4 Avesta “achieved a return of nearly \$30.” The press release quotes Will Newton, Director of
 5 Support Systems at Avesta, as stating: “[T]hanks to the revenue and leasing metrics, along with
 6 the support of our dedicated Yardi RENTmaximizer pricing specialist, we don’t leave money on
 7 the table”²⁵:

8 The Story

9 **Automated Pricing Increases Revenue**

10 After implementing RENTmaximizer, Avesta saw a significant gain after only six months. For every dollar
 11 they invested in the system, they achieved a return of nearly \$30. Will Newton, director of support
 12 systems, explained that as a resident-focused company, Avesta is delighted that RENTmaximizer makes it
 13 easy to offer customers a variety of lease terms and move-in dates, so each resident can choose what
 14 works best for them and their budget.

15 Newton elaborated further, saying that the revenue and leasing metrics Avesta gets from RENTmaximizer
 16 — along with the support of a dedicated RENTmaximizer revenue expert — ensure they consistently make
 17 profitable pricing decisions for every property.

18 25. In addition to their use of RENTmaximizer, Defendants also engaged in direct
 19 communications with their competitors regarding their pricing in furtherance of their
 20 conspiracy. Confidential witness interviews reveal that certain individual Landlord Defendants
 21 implemented a regular strategy of engaging in “market surveys” of their competitors. This is
 22 consistent with the long-standing academic understanding that competitors’ monitoring of each
 23 other facilitates the stability of cartels: “In the half century since the seminal paper of Stigler, it
 24 has become conventional wisdom that transparency in cartels - monitoring of competitors’
 25 prices, sales, and profits facilitates collusion. As [one source puts it]... ‘Lesser observability,
 26 including more noisy signals of price cuts, makes sustaining a given supracompetitive price
 27 harder.’ This idea is ubiquitous in textbooks on microeconomics...and antitrust law.”²⁶

28 ²⁵ Yardi, *Success Stories – Avesta*, <https://www.yardi.com/about-us/success-stories/avesta/>
 (last visited Sept. 7, 2023).

29 ²⁶ Sugaya, Takuo and Alexander Wolitzky. “Maintaining Privacy in Cartels.” Journal of
 Political Economy 126, 6 (December 2018): 2569-2607, available at

1 26. As part of this strategy, employees of Defendants would call their competitors,
 2 often on a weekly basis, and specifically ask what prices those competitors were charging. For
 3 example, CW 1, a former leasing consultant for Bridge Property Management, stated that she
 4 regularly conducted market surveys by “shopping” other apartment complexes, where she
 5 would gather information on pricing. Similarly, CW 2, another former employee at Bridge
 6 Property Management, recalled that he would call competitors’ complexes and ask their leasing
 7 agents for rent prices. Remarkably, Yardi competitor RealPage has defended its conduct in a
 8 separate lawsuit based on conduct similar to that alleged here by stating, among other things,
 9 that “its software helps reduce the risk of collusion that would occur if landlords relied on phone
 10 surveys of competitors to manually price their units.”²⁷ It is axiomatic that the exchange of
 11 competitively sensitive information is illegal per se if this exchange is made in furtherance of an
 12 agreement to fix prices; indeed, in 2011, the State of Connecticut sued (and subsequently
 13 reached a settlement with) hotels for the closely analogous practice of “calling other hotels to
 14 learn their occupancy rates and what they are charging.”²⁸

15 27. RENTmaximizer is today widely used throughout the United States to set
 16 multifamily rental prices. In 2013, for instance, Dharmendra Sawh (then Yardi’s “principal for
 17 revenue management”) stated publicly that RENTmaximizer was used to manage 8 million
 18 residential units around the world²⁹—a number that is likely far higher today.³⁰ Consistent with
 19 this, a test run economic analysis confirms that collective usage of Yardi RENTmaximizer leads

20 [https://wwws.law.northwestern.edu/research-
 21 faculty/clbe/events/antitrust/documents/wolitzky_maintaining_privacy.pdf.](https://wwws.law.northwestern.edu/research-faculty/clbe/events/antitrust/documents/wolitzky_maintaining_privacy.pdf)

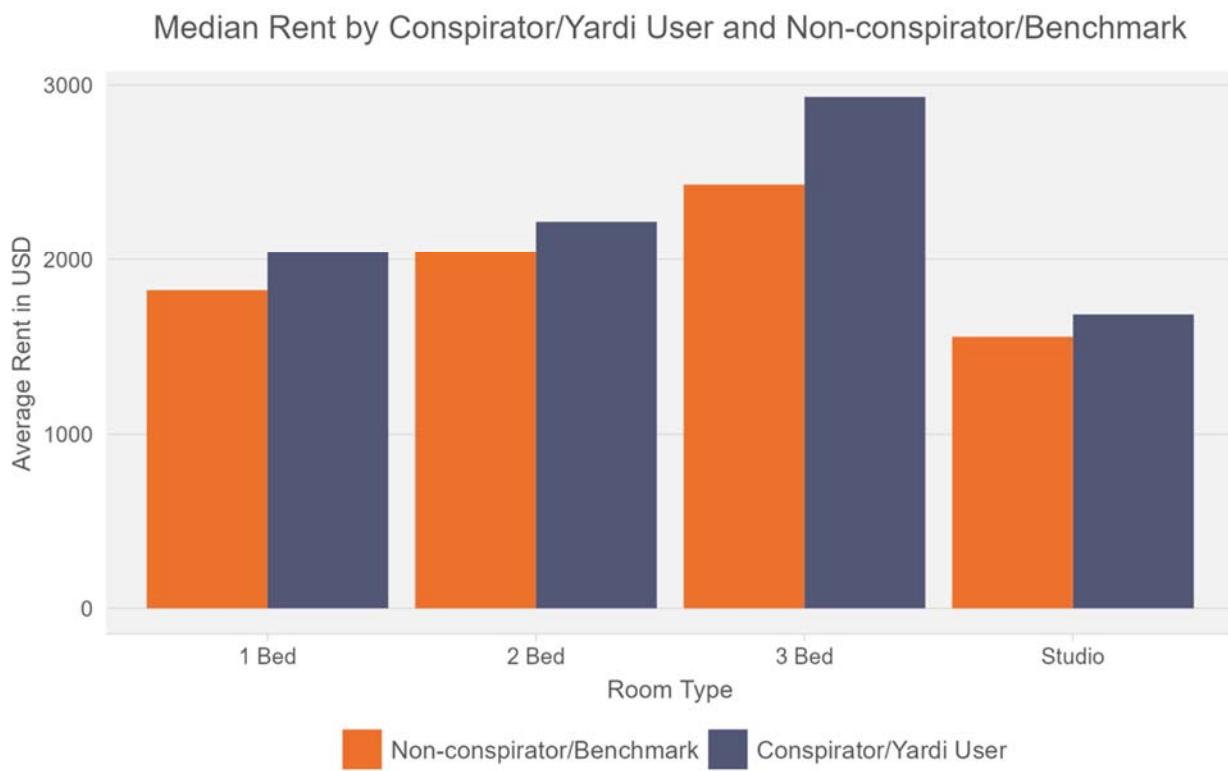
22 ²⁷ *Id.*

23 ²⁸ *Hotels Pay Fine for Alleged Price Fixing*, Hartford Courant (Aug. 11, 2011),
 24 <https://www.courant.com/2011/08/11/hotels-pay-fine-for-alleged-price-fixing/>.

25 ²⁹ Patrick Nelson, *Algorithms for Rent: The Price is Right*, Tech News World (Mar. 12,
 26 2013), <https://www.technewsworld.com/story/algorithms-for-rent-the-price-is-right-77498.html>.

27 ³⁰ Guy Lyman, *Don’t Miss This! Unveiling of “AIRM” AI Revenue Management at*
 28 *RealWorld*, RealPage, Inc. (Sept. 8, 2020), <https://www.realpage.com/blog/dont-miss-this-unveiling-of-airm-ai-revenue-management-at-realworld/>. By contrast, in September 2020,
 Yardi’s leading competitor RealPage—which also makes a product that automatically sets
 residential real estate lease prices—claimed that its own revenue management software was
 used to set the price for “over four million [multifamily] units.” *Id.*

1 to higher prices. Public rent data was collected over a period of several weeks in August 2023
 2 from Seattle, Charlotte, and Phoenix. A regression analysis was then performed in zip codes
 3 where usage of Yardi RENTmaximizer was higher than 15% of available units. The regression
 4 analysis controlled for various property and geographic features, such as (1) size of the unit, (2)
 5 number of bathrooms, (3) census average rent in the zip code, and (4) median income in the zip
 6 code. Across over 23,000 units, the regression found an average overcharge of 6% on units
 7 priced using RENTmaximizer as compared to units not priced using RENTmaximizer,
 8 including for studio, 1-bedroom, 2-bedroom, and 3-bedroom apartments. This is closely
 9 consistent with Yardi's repeated public statements that usage of RENTmaximizer led to a 6%
 10 average increase in net rental income:



21
 22 28. Further, economic research confirms that the use of pricing algorithms leads to
 23 anticompetitive effects, including elevated prices. Modern algorithms can use artificial
 24 intelligence to reach the objective of maximizing profits without the need for human
 25 intervention. For example, a 2021 empirical study found, in line with the predictions of
 26 theoretical models, that when gas stations in Germany used algorithms to set prices, their
 27
 28

1 margins increased by approximately 9%. Critically, the authors found that algorithm use only
 2 raised prices above competitive levels in places where competitors adopted algorithms jointly,
 3 and thus that “algorithmic pricing software adoption raises margins *only through its effects on*
 4 *competition.*”

5 29. Government regulators have long raised concerns about industry-wide use of
 6 algorithmic pricing. Earlier this year, for example, the Principal Deputy Assistant Attorney
 7 General of the Antitrust Division for the Department of Justice stated: “Where competitors
 8 adopt the same pricing algorithms, our concern is only heightened. Several studies have shown
 9 that these algorithms can lead to tacit or express collusion in the marketplace, potentially
 10 resulting in higher prices, or at a minimum, a softening of competition.”³¹ Similarly, Maureen
 11 Ohlhausen, when serving as acting Chairperson of the Federal Trade Commission, explained in
 12 2017 how multiple firms outsourcing pricing decisions to a single third-party actor—just as
 13 lessors have done with RealPage—raises significant antitrust concerns and is little different
 14 from funneling confidential pricing information through a “guy named Bob”:

15 What if algorithms are not used in such a clearly illegal way, but
 16 instead effectively become a clearing house for confidential pricing
 17 information? **Imagine a group of competitors sub-contracting**
their pricing decisions to a common, outside agent that
provides algorithmic pricing services. Each firm communicates
its pricing strategy to the vendor, and the vendor then
programs its algorithm to reflect the firm’s pricing strategy.
But because the same outside vendor now has confidential price
strategy information from multiple competitors, it can
program its algorithm to maximize industry-wide pricing. In
 21 effect, the firms themselves don’t directly share their pricing
 22 strategies, but that information still ends up in common hands, and
 23 that shared information is then used to maximize market-wide
 24 prices.

25 Again, **this is fairly familiar territory for antitrust lawyers, and**
 26 **we even have an old fashioned term for it, the hub-and-spoke**
 27 **conspiracy. Just as the antitrust laws do not allow competitors**

28 ³¹ U.S. Dep’t of Justice, *Principal Deputy Assistant Attorney General Doha Mekki of the*
Antitrust Division Delivers Remarks at GCR Live: Law Leaders Global 2023 (Feb. 2, 2023),
 available at <https://www.justice.gov/opa/speech/principal-deputy-assistant-attorney-general-doha-mekki-antitrust-division-delivers-0>.

1 **to exchange competitively sensitive information directly in an
2 effort to stabilize or control industry pricing, they also prohibit
3 using an intermediary to facilitate the exchange of confidential
4 business information.**

5 Let's just change the terms of the hypothetical slightly to
6 understand why. Everywhere the word "algorithm" appears, please
7 just insert the words "a guy named Bob".

8 Is it ok for a guy named Bob to collect confidential price strategy
9 information from all the participants in a market, and then tell
10 everybody how they should price? **If it isn't ok for a guy named
11 Bob to do it, then it probably isn't ok for an algorithm to do it
12 either.³²**

13 30. The Department of Justice has also recognized the significant anticompetitive
14 harms that may stem from centralized information exchanges. The DOJ recently brought an
15 enforcement action against Agri Stats, a third party information exchange service in the broiler,
16 pork, and turkey industries.³³ Like Yardi Matrix, Agri Stats facilitated the exchange of
17 competitively sensitive price and supply information between competitors. The Department of
18 Justice also recently filed a notice in an action against Yardi competitor RealPage, which is
19 alleged to have perpetuated a highly similar scheme using its "YieldStar" pricing algorithm,
20 stating that the United States "has a particularly substantial interest in addressing the proper
21 application of Section 1 of the Sherman Act, 15 U.S.C. § 1, to the use of algorithms by
22 competitors to help set pricing. Companies' use of algorithms in price setting, often in an effort
23 to increase pricing, has become more prevalent in the modern economy. As a result, the issues

24 ³² Maureen K. Ohlhausen, *Should We Fear The Things That Go Beep In the Night? Some
25 Initial thoughts on the Intersection of Antitrust law and Algorithmic Pricing*, Federal Trade
Commission (May 23, 2017), https://www.ftc.gov/system/files/documents/public_statements/1220893/ohlhausen_-_concurrences_5-23-17.pdf.

26 ³³ See U.S. Dep't of Justice, *Justice Department Sues Agri Stats for Operating Extensive
27 Information Exchanges Among Meat Processors* (September 28, 2023), available at
<https://www.justice.gov/opa/pr/justice-department-sues-agri-stats-operating-extensive-information-exchanges-among-meat>.

involved in this case are of increasing significance to the application of antitrust law across the economy.”³⁴

31. Defendants' misconduct—centered on the coordination and setting of optimal pricing through a shared, centralized decisionmaker—is not meaningfully different than a traditional hub-and-spoke price-fixing conspiracy. Because this conduct is facially anticompetitive, i.e., it produces clear anticompetitive effects and offers no procompetitive benefits, it is a naked restraint on trade that should be deemed illegal per se. But even if this conduct somehow benefitted competition and furthered consumer welfare in some minimal way (it does not), the anticompetitive effects would vastly outweigh any benefits and should be swiftly condemned under the rule of reason.

32. The conspiracy Plaintiffs challenges is unlawful under Section 1 of the Sherman Act. Plaintiffs bring this action as a class action on behalf of a class of individuals to recover damages, trebled, as well as injunctive and other appropriate relief, detailed *infra*, on behalf of all others similarly situated.

II. PARTIES

33. Plaintiff Mckenna Duffy is a citizen and resident of the State of Washington. Plaintiff Duffy rented multifamily residential units in properties managed by Landlord Defendant R.D. Merrill Real Estate Holdings. Plaintiff Duffy had a lease with The Wave from 2021 to 2022, then with The Nolo from 2022 to the present. Plaintiff Duffy paid inflated rental prices as a result of Defendant R.D. Merrill Real Estate Holdings' usage of Yardi's centralized pricing mechanism.

34. Plaintiff Michael Brett is an Australian citizen and resident of the State of Washington. Plaintiff Brett rented a multifamily residential unit in properties managed by Landlord Defendant R.D. Merrill Real Estate Holdings. Plaintiff Brett signed a lease with The Wave from August 2020 to November 2021. Plaintiff Brett paid inflated rental prices as a result

³⁴ See United States' Notice of Potential Participation (ECF No. 599), *In re: RealPage Rental Software Antitrust Litigation (No. II)*, Case No. 3:23-MD-3071 (Oct. 12, 2023).

of Defendant R.D. Merrill Real Estate Holdings' usage of Yardi's centralized pricing mechanism.

35. Defendant Yardi Systems, Inc. (“Yardi”) is a California corporation headquartered in Barbara, California. Yardi provides industry-leading property management software and services to the multifamily real estate industry, including the RENTmaximizer/Revenue IQ revenue management software described herein.

36. Landlord Defendant Bridge Property Management, L.C. (“Bridge Property”) is a Utah limited liability company headquartered in Sandy, Utah. Bridge Property manages over 50,000 multifamily rental units throughout the United States.³⁵ Bridge Property is one of Yardi’s clients and began using its RENTmaximizer revenue management software in at least 2015.³⁶

37. Landlord Defendant Calibrate Property Management, LLC (“Calibrate”) is a Washington limited liability company headquartered in Kirkland, Washington. Calibrate manages approximately 1,900 units in four states and is “rapidly growing.”³⁷ Calibrate is one of Yardi’s clients and began using its RENTmaximizer revenue management software beginning in at least 2023.

38. Landlord Defendant Dalton Management, Inc. (“Dalton”) is an Oregon corporation headquartered in Beaverton, Oregon. Dalton manages over 15 apartment complexes throughout California, Oregon, and Washington.³⁸ Dalton is one of Yardi’s clients and began using its RENTmaximizer revenue management software in at least 2016.³⁹

³⁵ <https://www.bridgepm.com/> (last visited Sept. 7, 2023).

³⁶ Bridge Property Management Gains 9.4% Year-Over-Year Rental Growth with Yardi RENTmaximizer, Business Wire (Sept. 29, 2015), <https://www.businesswire.com/news/home/20150929005288/en/Bridge-Property-Management-Gains-9.4-Year-Over-Year-Rental-Growth-with-Yardi-RENTmaximizer>.

³⁷ <https://calibratemanagement.com/> (last visited Sept. 7, 2023).

³⁸ <https://daltonmngt.com> (last visited Sept. 7, 2023).

³⁹ Dalton Management Reports Increased Revenue Using Yardi RENTmaximizer, Business Wire (May 19, 2016), <https://www.businesswire.com/news/home/20160519005003/en/Dalton-Management-Reports-Increased-Revenue-Using-Yardi-RENTmaximizer>.

1 39. Landlord Defendant HNN Associates, LLC (“HNN”) is a Washington limited
 2 liability company headquartered in Bellevue, Washington. HNN manages the 52 properties
 3 owned by Devco Residential Group, LLC in Washington state.⁴⁰ HNN is one of Yardi’s clients
 4 and began using its RENTmaximizer revenue management software in at least 2015.⁴¹

5 40. Landlord Defendant LeFever Mattson is a California corporation headquartered
 6 in Citrus Heights, California. LeFever Mattson manages over 3,000 residential units in
 7 California.⁴² LeFever Mattson is one of Yardi’s clients and began using its RENTmaximizer
 8 revenue management software in at least 2017.⁴³

9 41. Landlord Defendant Manco Abbott, Inc. (“Manco Abbott”) is a California
 10 corporation headquartered in Fresno, California. Manco Abbott is one of Yardi’s clients and
 11 began using its RENTmaximizer revenue management software in at least 2015.⁴⁴

12 42. Landlord Defendant Morguard Corporation is a Canadian Corporation
 13 headquartered in Mississauga, Ontario. Morguard Corporation’s wholly owned subsidiary,
 14 Morguard Management Company, Inc. (“Morguard”), manages rental properties throughout the
 15 United States and is a Louisiana corporation headquartered in Metairie, Louisiana. Morguard is
 16 one of Yardi’s clients and began using its RENTmaximizer revenue management software in at
 17 least 2015.⁴⁵

19 40 <https://www.lifeisbetterhere.com/ourproperties.aspx> (last visited Sept. 7, 2023).

20 41 *HNN Associates, LLC Optimizes Rental Pricing Performance with Yardi RENTmaximizer*,
 Business Wire (February 17, 2015),
<https://www.businesswire.com/news/home/20150217005101/en/HNN-Associates-LLC-Optimizes-Rental-Pricing-Performance-with-Yardi-RENTmaximizer>.

22 42 <https://www.lefevermattson.com/> (last visited Sept. 7, 2023).

23 43 *LeFever Mattson Achieves Success with Yardi*, Business Wire (July 28, 2017),
<https://www.businesswire.com/news/home/20170728005004/en/LeFever-Mattson-Achieves-Success-with-Yardi>.

25 44 *Manco Abbott Inc. Achieves Rental Growth, Gains Expert Pricing Insight with Yardi RENTmaximizer*, Business Wire (November 10, 2015),
<https://www.businesswire.com/news/home/20151110005039/en/Manco-Abbott-Inc.-Achieves-Rental-Growth-Gains-Expert-Pricing-Insight-with-Yardi-RENTmaximizer>.

27 45 See Morguard North American Residential Real Estate Investment Trust, Q4 2015
 Earnings Call (Feb. 18, 2016).

1 43. Landlord Defendant R.D. Merrill Real Estate Holdings, LLC (hereafter referred
 2 to as “Pillar Properties”) is a Washington limited liability company headquartered in Seattle,
 3 Washington. Under the registered trade name “Pillar Properties,” R.D. Merrill manages 2,114
 4 units.⁴⁶ Pillar Properties is one of Yardi’s clients and began using its RENTmaximizer revenue
 5 management software in at least 2016.⁴⁷

6 44. Landlord Defendant Summit Management Services, Inc. (“Summit”) is an Ohio
 7 corporation headquartered in Akron, Ohio. Summit manages over 4,000 units across the
 8 country.⁴⁸ Summit is one of Yardi’s clients and began using its RENTmaximizer revenue
 9 management software in at least 2012.⁴⁹

10 45. Landlord Defendant Creekwood Property Corporation (“Tonti Properties”) is a
 11 Texas corporation headquartered in Dallas, Texas. Creekwood Property Corporation’s trade
 12 name is Tonti Properties. Tonti Properties manages 17 properties in Arizona, Colorado, Florida,
 13 Louisiana, and Texas. Tonti Properties is one of Yardi’s clients and began using its
 14 RENTmaximizer revenue management software in at least 2016.⁵⁰

15 A. Co-Conspirators and Agents

16 46. Co-conspirator Alco Management, Inc. (“Alco”) is a Tennessee corporation
 17 headquartered in Memphis, Tennessee. During the Class Period, Alco and/or its predecessors,
 18 wholly owned or controlled subsidiaries, or affiliates managed more than 6,000 rental units
 19
 20

21 ⁴⁶ <https://www.pillarproperties.com> (last visited Sept. 7, 2023).

22 ⁴⁷ Yardi, *Pillar Properties on Elevate*, <https://www.yardi.com/about-us/success-stories/pillar-properties-on-elevate/>; Yardi, *Empowering Our Clients: Pillar Properties & RENTmaximizer* (Sept. 21, 2016), <https://www.facebook.com/Yardi/videos/empowering-our-clients-pillar-properties-rentmaximizer/1219283938135317/>.

23 ⁴⁸ <https://summitmanagementliving.com/> (last visited Sept. 7, 2023).

24 ⁴⁹ Yardi *RENTmaximizer Gives Summit Management Services Inc. New Rental Pricing Insight*, Business Wire (January 31, 2012), <https://www.businesswire.com/news/home/20120131006159/en/Yardi-RENTmaximizer-Gives-Summit-Management-Services-Inc.-New-Rental-Pricing-Insight>.

25 ⁵⁰ *Tonti Properties Increases Rental Income with Yardi RENTmaximizer*, Business Wire

26 (June 14, 2016), <https://www.businesswire.com/news/home/20160614005001/en/>.

1 throughout nine states.⁵¹ Alco is one of Yardi's clients and began using its RENTmaximizer
 2 revenue management software in at least 2017.⁵²

3 47. Co-conspirator McWhinney Property Management, LLC ("McWhinney
 4 Property") is a Colorado corporation headquartered in Denver, Colorado. During the Class
 5 Period, McWhinney Property and/or its predecessors, wholly owned or controlled subsidiaries,
 6 or affiliates managed approximately 19 multifamily properties in its portfolio.⁵³ McWhinney
 7 Property is one of Yardi's clients and began using its RENTmaximizer revenue management
 8 software beginning in at least 2021.

9 48. Co-conspirator KRE Group, Inc. ("KRE Group") is a New Jersey corporation
 10 headquartered in Jersey City, New Jersey. During the Class Period, KRE Group and/or its
 11 predecessors, wholly owned or controlled subsidiaries, or affiliates managed approximately 22
 12 rental properties in New Jersey and Pennsylvania. KRE Group is one of Yardi's clients and
 13 began using its RENTmaximizer revenue management software in at least 2017.⁵⁴

14 49. Co-conspirator Towne Properties is an Ohio domestic for-profit corporation
 15 headquartered in Cincinnati, Ohio. Towne Properties manages more than 12,000 units in Ohio,
 16 Kentucky, Indiana and North Carolina.⁵⁵ Towne Properties is one of Yardi's clients and began
 17 using its RENTmaximizer revenue management software in at least 2020.

18 50. Co-conspirator Tribridge Residential, LLC ("Tribridge") is a Georgia limited
 19 liability company headquartered in Atlanta, Georgia. During the Class Period, Tribridge and/or
 20 its predecessors, wholly owned or controlled subsidiaries, or affiliates managed over 30

21
 22
 23 ⁵¹ <https://www.alcomgt.com/> (last visited Sept. 7, 2023).

24 ⁵² *The Benefits of BI*, Alco Management (November 8, 2017),
 25 <https://www.alcomgt.com/blog/2017/11/08/the-benefits-of-bi/>.

26 ⁵³ <https://mcwhinney.com/portfolio/?company=multifamily> (last visited Sept. 7, 2023).

27 ⁵⁴ *KRE Group Grows Profits and Occupancy with Yardi RENTmaximizer*, Business Wire
 28 (March 14, 2017), <https://www.businesswire.com/news/home/20170314005389/en/KRE-Group-Grows-Profits-and-Occupancy-with-Yardi-RENTmaximizer>.

⁵⁵ <https://www.towneproperties.com/> (last visited Sept. 7, 2023).

1 properties over five states. Tribridge is one of Yardi's clients and began using its
 2 RENTmaximizer revenue management software in at least 2015.⁵⁶

3 51. Co-conspirators John Does 1-100 are those property managers and/or owners
 4 who are Yardi's clients and have used its RENTmaximizer revenue management software.
 5 Discovery will reveal the identities of these entities, which are not known to Plaintiffs.

6 52. Defendants' officers, directors, agents, employees, or representatives engaged in
 7 the conduct alleged in this Complaint in the usual management, direction or control of
 8 Defendants' business or affairs.

9 53. Defendants are also liable for acts done in furtherance of the alleged conspiracy
 10 by companies they acquired through mergers and acquisitions.

11 54. When Plaintiffs refers to a corporate family or companies by a single name in
 12 this Complaint, they are alleging that one or more employees or agents of entities within that
 13 corporate family engaged in conspiratorial acts on behalf of every company in that family. The
 14 individual participants in the conspiratorial acts did not always know the corporate affiliation of
 15 their counterparts, nor did they distinguish between the entities within a corporate family. The
 16 individual participants entered into agreements on behalf of their respective corporate families.
 17 As a result, those agents represented the entire corporate family with respect to such conduct,
 18 and the corporate family was party to the agreements that those agents reached.

19 55. Each of the Defendants acted as the agent of, co-conspirator with, or joint
 20 venture partner of the other Defendants and co-conspirators with respect to the acts, violations,
 21 and common course of conduct alleged in this Complaint. Each Defendant or co-conspirator
 22 that is a subsidiary of a foreign parent acted as the United States agent when agreeing to use
 23 Yardi RENTmaximizer at multifamily rental properties managed in the United States.

24
 25
 26
 27 ⁵⁶ *TriBridge Residential Opt for Full Yardi Multifamily Solution Stack*, Yardi Newsletter
 28 (Winter 2015), https://media.whatcounts.com/sitestuff_yardi/121914_MFeNews/20141111-tribridge.html.

III. JURISDICTION AND VENUE

56. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1337, as this action arises out of Section 1 of the Sherman Antitrust Act (15 U.S.C. § 1) and Sections 4 and 16 of the Clayton Antitrust Act (15 U.S.C. §§ 15 and 26).

57. This Court has personal jurisdiction over Defendants under Section 12 of the Clayton Act (15 U.S.C. § 22), Federal Rule of Civil Procedure 4(h)(1)(A), and Washington's long-arm statute, the Revised Code of Washington § 4.28.185.

58. Defendants, directly or through their divisions, subsidiaries, predecessors, agents, or affiliates, engage in interstate commerce in the sale of multifamily residential real estate leases.

59. Venue is proper in this District pursuant to Section 12 of the Clayton Act (15 U.S.C. § 22) and the federal venue statute (28 U.S.C. § 1391), because one or more Defendants maintain business facilities, have agents, transact business, and are otherwise found within this District and certain unlawful acts alleged herein were performed and had effects within this District.

IV. FACTUAL BACKGROUND

A. Yardi's RENTmaximizer is widely used in the national multifamily rental market to set lessors' prices.

60. Defendant Yardi Systems, Inc. (“Yardi”) develops, sells, and supports real estate investment management and property management software. Its clients are managers of residential rental apartments, to which it offers products for, among other things, managing operations, executing leases, running analytics, and providing various resident and tenant services.

61. Yardi was founded in 1984. That same year, Yardi created “Basic Property Management” software for the Apple II computer.⁵⁷ Since that time, Yardi has developed a widely used property management software, Yardi “Voyager,” that allows multifamily

⁵⁷ Yardi, *Leadership Team*, <https://www.yardi.com/about-us/leadership-team/> (last visited Sept. 7, 2023).

1 residential property managers to “[c]entralize operational, financial, leasing, and maintenance
 2 management . . . in a single database,” as well as handle “marketing, screening, insurance,
 3 revenue management, business intelligence, and more[.]”⁵⁸ It “offers unrivaled solutions for
 4 residential property management, built into a single, mobile software platform.”⁵⁹

5 62. Yardi advertises its Voyager software as the “most advanced and widely adopted
 6 residential property management [software as a service]⁶⁰ platform with built-in accounting,
 7 real-time performance analysis and complete mobility.”⁶¹

8 63. Yardi’s dominance in the property managements software market is reflected in
 9 the fact that Yardi has been sued by multiple rivals for monopolization in that market. In 2011,
 10 RealPage, a company that also provides various property management services, asserted
 11 counterclaims against Yardi for Yardi’s attempts to use its dominant position over Voyager
 12 software users to coerce them into signing contracts that prevent Voyager users from using
 13 competitors’ product.⁶² Real Page stated that Yardi had a dominant market position in the
 14 property management software market due to the “widespread adoption of its Voyager
 15 software,” and the massive costs associated with transferring data and information Yardi users
 16
 17

18 ⁵⁸ See Yardi, *Voyager Residential*, <https://www.yardi.com/products/yardi-voyager-residential/> (last visited Sept. 7, 2023).

19 ⁵⁹ Yardi, *Voyager*, <https://www.yardi.com/products/yardi-voyager/>.

20 ⁶⁰ “Software as a service” (“SaaS”) is a “cloud based software delivery model that allows
 21 end users to access software applications over the internet” via remote servers (e.g., via a web
 22 browser or mobile app) rather than requiring that the software be downloaded and installed. See
 23 SalesForce, *What is SaaS?*, <https://www.salesforce.com/in/saas/> (last visited Sept. 7, 2023).
 24 Yardi transitioned Voyager to a SaaS model in approximately 2012. See Yardi, Press Release,
 25 *Yardi Announces Voyager SaaS and Private Cloud Solutions* (Mar. 22, 2012),
<https://www.yardi.com/news/yardi-announces-voyager-saas-and-private-cloud-solutions/>.

26 ⁶¹ *Voyager Residential*, *supra* note 40. Yardi also makes a separate program for multifamily
 27 property managers, Yardi “Elevate,” that it advertises as an “all-in-one solution for asset
 28 management . . . designed for CEOs, COOs, asset managers, and other operational managers.”
 See Yardi, *Why Elevate?*, <https://www.yardielevate.com/why-yardi-elevate/> (last visited Sept. 7, 2023).

29 ⁶² RealPage, Inc.’s Opp’n to MTD, *Yardi Systems, Inc. v. RealPage, Inc.*, No. CV11-690
 30 ODW (C.D. Cal. 2011).

1 would incur if they choose to switch software. RealPage explained that the high switching costs
 2 that Yardi Voyager users face have effects beyond users themselves:

3 Many large institutional property owners and investors do not
 4 manage properties themselves, but instead hire professional
 5 property management firms to manage their properties for a fee
 6 (“fee managers”). These institutional owners and investors
 7 frequently use Yardi’s Voyager Back Office Accounting Software
 8 themselves in order to monitor their investments. To ensure that
 9 they maintain a single system of record throughout their portfolio,
 10 these institutional owners and investors often require their fee
 11 managers to also use Yardi’s Voyager Back Office Accounting
 12 Software. Once these fee managers adopt Yardi’s Voyager Back
 13 Office Accounting Software, they face two layers of lock-in: lock-
 14 in due to switching costs, and lock-in because the institutional
 15 owners are themselves locked into the use of Voyager Back Office
 16 Accounting Software and mandate that their fee managers use it as
 17 well. Thus, a fee manager that wishes to stop using Voyager Back
 18 Office Accounting Software faces two virtually insurmountable
 19 obstacles: (1) switching costs that would take years to recoup, and
 20 (2) a significant loss of business from institutional owners and
 21 investors that are, themselves, locked-in to using Voyager Back
 22 Office Accounting Software and will not work with fee managers
 23 who do not also license and use Voyager Back Office Accounting
 24 Software. The effects of this double lock-in problem on fee
 25 managers are pronounced. To illustrate, when looking at the total
 26 number of apartment units managed by the top 50 property
 27 managers, over 75% of those that are fee managed (over 1.1 million
 28 units) are managed using Yardi’s Voyager Back Office Accounting
 29 Software. Yardi’s dominance is even more apparent when looking
 30 at the total number of apartment units managed by the top 25
 31 property managers (those most likely to fee manage for major
 32 institutional property owners): among that subset, over 90% of
 33 those units that are fee managed are managed using Yardi’s
 34 Voyager Back Office Accounting Software.⁶³

35 64. In 2015, Entrata, a company that also provides various property management
 36 services, brought antitrust claims against Yardi for monopolization. Entrata stated that Yardi has
 37 been a dominant provider of residential property management software and was used by in
 38 excess of 60% of the multifamily housing industry.⁶⁴ As of 2016, more than eight million
 39 residential units were managed using Yardi software, and more than 1,650 property
 40

41 63 RealPage Inc’s Second Amended Counterclaim, at ¶ 26, *Yardi Systems, Inc. v. RealPage, Inc.*, No. CV11-690 ODW (C.D. Cal. 2011).

42 64 Plaintiff’s First Amended Complaint, ¶ 24, *Entrata v. Yardi Systems*, 2:15-cv-00102-CW
 43 (D. Utah, 2015).

1 management customers are using Yardi Voyager 7S.⁶⁵ Those numbers are likely far higher
 2 today: an October 31, 2023 press release states that Yardi has “over 15 million units on its
 3 platform.”⁶⁶

4 65. In 2011, Yardi launched a new “revenue management system” integrated into the
 5 Yardi Voyager platform called “Yardi RENTmaximizer.”⁶⁷ According to a press release
 6 announcing its release, RENTmaximizer was a tool intended to “automate[] the rental pricing
 7 process” and help “multifamily property managers maximize rental income” by “increasing a
 8 multifamily property owner’s revenue by 3 to 6 percent”⁶⁸—that is, RENTmaximizer
 9 effectively transfers the management of rental pricing from a landlord to Yardi itself.
 10 Specifically, the press release explained that RENTmaximizer:

11 helps apartment owners and managers set prices directly from the
 12 trends of supply, demand and market conditions (i.e., market
 13 comparisons). Using pricing algorithms, this holistic trends-and-
 14 rules-based model helps multifamily property managers maximize
 15 rental income and occupancy by pricing each new and renewal
 lease for maximum revenue. Yardi RENTmaximizer also provides
 complete transparency into how the price was determined to further
 facilitate the leasing process.⁶⁹

16 66. According to Dharmendra Sawh, one of two experts Yardi had then recently
 17 hired to help launch RENTmaximizer, RENTmaximizer represented Yardi’s attempt to make
 18 “automated rental pricing a key element of the [Yardi] platform.”⁷⁰ Similarly, in a 2016 press
 19 release announcing one lessor’s (the Rockbridge Group) adoption of RENTmaximizer, Terri
 20 Dowen, then Yardi’s senior vice president of sales, explained that “[b]y automating rental
 21 pricing that factors in portfolio and market data, RENTmaximizer not only improves rental

23 ⁶⁵ *Id.* at ¶ 18.

24 ⁶⁶ Yardi, *Yardi Announces the Elimination of ACH Rent Payment Fees* (Oct. 31, 2023),
<https://www.yardi.com/news/press-releases/yardi-announces-the-elimination-of-ach-rent-payment-fees/> (last visited Nov. 2, 2023).

25 ⁶⁷ *Yardi Adds Two Revenue Management Experts to its Yardi RENTmaximizer Team*, *supra*
 note 5.

26 ⁶⁸ *Id.*

27 ⁶⁹ *Id.*

28 ⁷⁰ *Id.*

1 income while maintaining occupancy, it simplifies the process by eliminating rent rate
 2 guesswork and traditional sales devices such as concessions and specials.”⁷¹

3 67. In a since-deleted post from 2015 on its corporate blog, Yardi elaborated on the
 4 importance of automated pricing, posing the rhetorical question: “If you have to approve prices
 5 from your pricing technology, do you really have a pricing system?” It went on to note that
 6 “[o]ne of the fundamental design elements of the Yardi RENTmaximizer™ revenue
 7 management system is to remove the need for human intervention wherever possible. The
 8 revenue manager support team has many configuration options at its disposal in order to
 9 establish a performance level that meets the strategic objectives for pricing your property.”

10 Another portion of the post elaborates further:

Efficiency Through Technology

12 Technology is supposed to make us more efficient in how we apply
 13 our expensive human labor. When you pay double for technology
 14 plus for someone to approve that technology’s output, you are not
 15 getting efficiency out of the technology. This is akin to a pilot
 16 having to approve the actions of the autopilot prior to the autopilot
 17 making the adjustments. While the pilot should check the overall
 18 progress of the autopilot once in a while to make sure things stay
 19 on track, requiring constant supervision and approval makes no
 20 sense.

21 We encourage our clients to be actively engaged in their pricing
 22 activity. We think it is critical for a person to keep watch over any
 23 automated system to ensure that its inputs are in line with the
 24 pricing strategy for a property. However, we do not believe it is an
 25 efficient use of a person’s time to be trained or to have to keep up
 26 to date with the technical nuances and options the technology uses
 27 to convert the strategic vision into actual pricing action. That is why
 28 Yardi supplies a technical specialist who is well-versed in the
 company’s business objectives.⁷²

71 See Rockbridge Group, *supra* note 6.

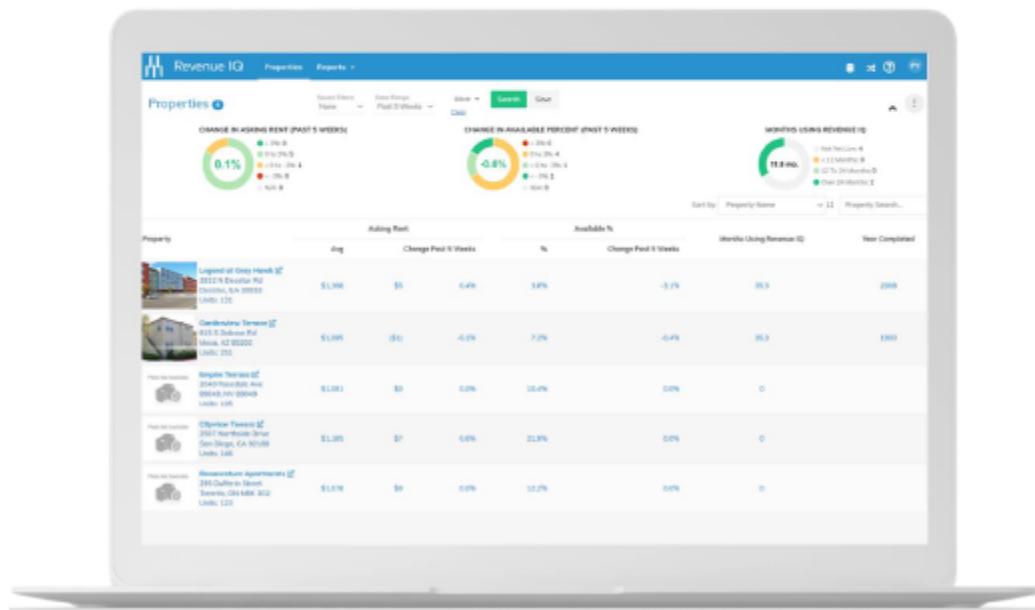
72 Yardi, *The RENTmaximizer Pricing System: Establishing an Automated Pricing System* (Mar. 1, 2015), available at <https://web.archive.org/web/20210302112741/https://www.yardi.com/blog/uncategorized/the-rentmaximizer-pricing-system/12666.html>.

68. Yardi continues to emphasize the automated nature of the pricing adjustments provided by RENTmaximizer. For example, in a private 2023 presentation to a potential client, Yardi touted that the software “automates profitable decision-making across your organization” while providing “full visibility into...your competitive position in the market”:

Yardi Revenue IQ

Get better results with Yardi Revenue IQ. Built into your Yardi platform, this dynamic revenue management system optimizes revenue by pricing leases using the balance between your real-time inventory, traffic, and market conditions. Yardi Revenue IQ creates full visibility into your rent movement, financial and operational performance, and your competitive position in the market. It automates profitable decision-making across your organization.

Market economic data and automated market surveys improve pricing decisions. You can benchmark results against market and submarkets and compare occupancy trends with the market. Dedicated support from an experienced revenue manager ensures your success.



69. On information and belief, RENTmaximizer is today widely used throughout the United States to set multifamily rental prices. In 2013, for instance, Dharmendra Sawh (then Yardi’s “principal for revenue management”) stated publicly that RENTmaximizer was used to price 8 million residential units around the world.⁷³ Two years later, in a now-deleted blog post

⁷³ Nelson, *supra* note 29.

1 on Yardi's website, Yardi staff wrote that "Yardi RENTmaximizer was quickly adopted by
 2 Yardi clients from the beginning" and that "its adoption rate continues to grow exponentially,"
 3 and identified six exemplar markets (Northern Virginia, North Dallas, West Houston, Denver,
 4 Phoenix, and Orange County) "in which a significant number of properties use Yardi
 5 RENTmaximizer."⁷⁴

6 70. As a recognized "market leader in real estate technology,"⁷⁵ it is reasonable to
 7 believe that RENTmaximizer is used far more widely today. By contrast, in September 2020,
 8 Yardi's leading competitor RealPage—which also makes a product that automatically sets
 9 residential real estate lease prices—claimed that its own revenue management software was
 10 used to set the price for "over four million [multifamily] units."⁷⁶ Consistent with this, CW 7,
 11 who worked at Yardi between 2019 and 2021 as a senior account executive, stated that she saw
 12 clients moving from RealPage's YieldStar product to RENTMaximizer during her time at
 13 Yardi, and that RENTMaximizer "performed equally as well as our competitors" from a sales
 14 perspective, according to the reports Yardi's marketing team shared internally.

15 71. According to Yardi's publicly-available promotional materials, a key input to
 16 RENTmaximizer's pricing algorithm, or "engine," is competitor pricing data. Specifically,
 17 RENTmaximizer asks users to input their data, such as rental rates and occupancy, into its
 18 system; meanwhile, the system automatically incorporates market-specific information on
 19 "comparative rent" to, in Yardi's words, give users "accurate and timely information regarding
 20 your market—including every comp and how you compete"⁷⁷—or what it also calls "complete

21
 22
 23 ⁷⁴ Yardi, *Yardi RENTmaximizer Market Analysis: 2013 Performance Results*, The Balance
 24 Sheet: Yardi Corporate Blog (Mar. 1, 2015), available at
<https://web.archive.org/web/20210302115856/https://www.yardi.com/blog/uncategorized/yardi-rentmaximizer-market-analysis/12670.html>.

25 ⁷⁵ Redirect Consulting, *The Year in Yardi: 2017 Edition*,
 26 https://www.redirectconsulting.com/hubfs/eBooks/2017/yardi%202017/redirect_ebook_This-Year-in-Yardi_2018-06-27.pdf (last visited Sept. 7, 2023).

27 ⁷⁶ Lyman, *supra* note 30.

28 ⁷⁷ Yardi *Elevate*, *supra* note 10.

1 visibility," including "performance benchmarking" "compared to the market, submarket, and
2 competition":

YARDI RENTMAXIMIZER

Increase rental income and improve occupancy with a dynamic revenue management system built into Yardi Voyager and Asset IQ. Designed to optimize revenue by pricing leases using the balance between your real-time inventory, traffic and market conditions from Yardi Matrix, RENTmaximizer provides complete visibility into your rent movement and your financial and operational performance. RENTmaximizer is intuitive and reacts to other operational activities, from site improvements to marketing. Get accurate and timely information regarding your market – including every comp and how you compete.



COMPLETE VISIBILITY

RENTmaximizer provides holistic revenue intelligence for your operations team. With this transparent system you'll see everything from rental rates and occupancy data to property performance benchmarking (compared to the market, submarket and competition). Prospects and residents will gain various pricing options, while your managers will enjoy greater confidence that you are delivering the best possible rental prices.

BETTER RESULTS

This intuitive, transparent pricing system empowers your sales force, provides clear and comprehensive reporting and promotes adoption throughout your organization. Leases are priced by the system daily, which allows for fast adaptation to market conditions and changes in your inventory and traffic, while adjusting for cost constraints such as vacancy loss, turnover costs, inventory hold days and lease expiration management.

BETTER SERVICE

You manage your business, we manage your pricing. Only Yardi provides you with a dedicated revenue manager with valuable industry experience along with your revenue management software. Your dedicated revenue manager will get to know your business processes, assets and goals to provide superior support and will work with you to maximize your returns. And as a RENTmaximizer client, you'll receive this service and training continuously to promote ongoing success.



RENTmaximizer provides total visibility into your vacancy forecast.



Historical information and other metrics help you manage and forecast lease expirations.

Clear and comprehensive metrics focus on all operational components that drive revenue including rental income, concessions, occupancy and rates, as well as just pricing. The Performance Benchmark Detail report allows you to view data across several months.

KEY FEATURES

- Industry benchmarking data provides complete visibility for more successful pricing
- Multiple pricing options fit customer needs and address fair housing concerns
- Predictable daily pricing allows for fast adjustment to market conditions and your inventory
- Analytical reporting provides complete intelligence on components that drive maximum revenue
- Superior service and ongoing training from experienced revenue managers

MARKET INTELLIGENCE

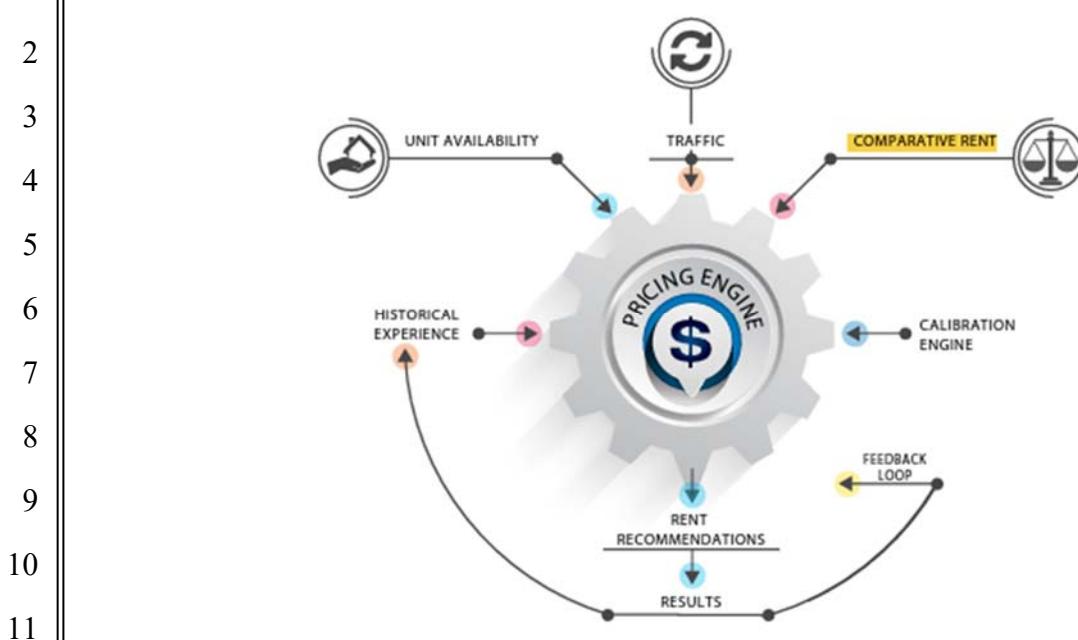
Yardi Matrix provides nationwide intelligence on markets, submarkets, competition, developments, rents, occupancy and more. This data delivers accurate indicators of economic trends and performance and helps you price apartments profitably. When this market-specific data is incorporated with your RENTmaximizer data, you can accurately benchmark performance and factor it into rent projections and calculations which enhances your revenue management strategy and helps boost the performance of individual assets.



HAGENS BERMAN

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12. Leveraging data gathered from RENTmaximizer users as well as comparative
 13. rent, RENTmaximizer's rental pricing algorithm then calculates a "rent recommendation" that
 14. users can—and are encouraged to—automatically adopt. These prices are updated "daily." In an
 15. alternative version of the same presentation above available on Yardi's website, Yardi
 16. prominently advertises that RENTmaximizer's "pricing engine" operates on a positive
 17. "feedback loop" that allow users to "beat the market by a minimum of 2%" and "gain[] on
 18. average more than 6% net rental income"⁷⁸:

Better Results

20 Clients using RENTmaximizer have gained on average more than 6% net
 21 rental income growth while improving occupancy. And, RENTmaximizer
 22 properties consistently beat the market by a minimum of 2%. This
 23 intuitive, transparent pricing system empowers your sales force, provides
 24 clear and comprehensive reporting and promotes adoption throughout
 25 your organization. Leases are priced by the system daily, which allows
 26 for fast adjustment to market conditions and changes in your inventory
 27 and traffic, while adjusting for cost constraints such as vacancy loss,
 turnover costs, inventory hold days and lease expiration management.

28 ⁷⁸ *Yardi Multifamily Suite*, *supra* note 8.

1 73. Similarly, in a 2018 press release, Yardi noted that its pricing algorithm
 2 generates rents that “maximize rental income” for a user (including Landlord Defendants),⁷⁹ and
 3 that its process is “transparent” to property managers so that “they can understand what factors
 4 are influencing pricing.”⁸⁰ Other Yardi promotional materials also emphasize the extent to
 5 which Yardi gives its clients access and insight into competitor data. For example, a separate
 6 2017 Yardi press release touts the fact that RENTmaximizer “lets clients know their markets in
 7 real time, including how they compare with competing communities”:

8 Yardi RENTmaximizer helps clients drive revenue with clear,
 9 comprehensive metrics focusing on operational components
 10 including rental income, concessions, occupancy and rental rates
 — not just pricing. The system tracks rent movement and lets
 11 clients know their markets in real time, including how they
 compare with competing communities.

12 According to Sarah Oglesby-Battle, executive vice president of
 13 Beztak’s management division, “In the last 12 months, we’ve
 14 grown to over 17,000 multifamily units under management. With
 15 RENTmaximizer, we have a dynamic system that pushes rents
 16 without sacrificing occupancy, which gives our staff confidence.
 17 With automated pricing, RENTmaximizer eliminates the fear
 18 factor of exposure that is a natural concern for property and
 regional managers. RENTmaximizer factors in historical and
 relevant data to assure us that we will get the traffic and leases we
 need to meet our revenue goals.”⁸¹

19 74. A 2018 post discussing lessor DEELS Properties’ “significant rental income
 20 games” as a result of RENTmaximizer use also emphasizes that Yardi’s prices take into account
 21 “competitor rates”:

22 Having a mathematical process that determines and adjusts prices
 23 based on real data and ever-changing market conditions was critical
 24 for DEELS. According to Hameiri, DEELS now adjusts prices
 daily based on a set of criteria and formulas that streamline the
 process. *The result is up-to-date prices that take into consideration*

25 79 *DEELS Properties Gets Results with Yardi RENTmaximizer*, Business Wire (Feb. 26,
 26 2018), <https://www.businesswire.com/news/home/20180226005236/en/DEELS-Properties-Gets-Results-with-Yardi-RENTmaximizer>.

27 80 *Id.*

28 81 *Beztak Grows Rental Income with Yardi RENTmaximizer*, *supra* note 19.

1 *supply and demand broken down by traffic, competitor rates,
2 vacancies and notices.*⁸²

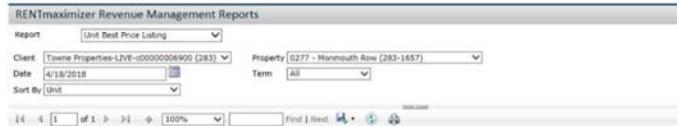
3 75. A publicly available Yardi user manual created by property manager Towne
4 Properties indicates how RENTmaximizer is used in practice to automatically set prices.⁸³ The
5 manual explains that, to set price for a unit, a property manager needs to enter a specific move-
6 in time frame and lease term into the RENTmaximizer system, and the system will populate the
7 “best price” for that selected unit. It’s as simple as Yardi’s official brochure put it: “You
8 manage your business, we manage your pricing.”

RENT MAXIMIZER PRICING REPORT

- 9 1. From your Dashboard Home page, click on Reports > RENTmaximizer > RENTmaximizer Revenue
10 Management Reports.



- 11 2. Select the Unit Best Price Listing Report, choose your Property and select today's date – Click View
12 Report.



- 13 3. This will populate the Best price (with the specific move in time frame and lease term). If your prospect is
14 looking for a different move in date or different lease term, just click on the monthly rent amount, and
15 that will populate all your options for that specific unit.

16 76. Similarly, other slides in the presentation indicate that, unless overridden,
17 “property pricing is *controlled by*” RENTmaximizer:

26 82 Noam Hameiri, *Pricing That Wins – Interview*, LinkedIn (June 29, 2018),
27 <https://www.linkedin.com/pulse/pricing-wins-interview-noam-hameiri-mba/> (emphasis added).

28 83 See Towne Properties Yardi Manual, available at <https://docplayer.net/186429673-Towne-properties-yardi-manual.html> (last visited Sept. 7, 2023).

Renewal Proposal Filter

Property pricing is controlled by Revenue Management.

Prop/List	0092
Agent	Arielle Curry ▾
Batch Description	JenniferMason@tovinproperties.com - 8/3/2019 9:41:17 AM
Unit Type	<input type="text"/>
Unit	<input type="text"/>
Resident	<input type="text"/>
Status	Current Eviction Notice
Lease Expiration	11/01/2019 <input type="button" value="..."/> 11/30/2019 <input type="button" value="..."/>
Include MTM?	Exclude ▾
Include Specials?	<input type="checkbox"/>
Update Rentable Items to Market Rent?	No ▾
Proposal Exp. Date	08/31/2019 <input type="button" value="..."/>
Submit	Help

77. Public statements by other property managers indicate that RENTmaximizer is commonly used to fully automate pricing, consistent with Yardi's public statements and marketing materials. For example:

- Jennifer van Arcken, director of information systems for lessor BSR Trust, stated in a 2012 press release that with RENTmaximizer, “all [property managers] have to do is enter some market study data every month, and RENTmaximizer does the rest.”⁸⁴ According to the press release, revenue across BSR Trust’s 7,000 units increased by 3.34% after RENTmaximizer was implemented, and RENTmaximizer “improved business performance” by, among other things, “eliminating concessions”:

Yardi RENTmaximizer also improves BSR Trust's business performance by eliminating concessions, reducing bad debt and increasing occupancy. "By giving us the market rate for every unit, RENTmaximizer eliminates guesswork by our property managers," van Arcken said. "It also reduces incentive for residents to sign a lease just to get a move-in special, then leave soon after. Furthermore, we're signing more leases for 15 months rather than

⁸⁴ BSR Trust LLC Increases Rental Income with Yardi RENTmaximizer, Business Wire (July 19, 2023), <https://www.businesswire.com/news/home/20120719006370/en/BSR-Trust-LLC-Increases-Rental-Income-with-Yardi-RENTmaximizer>.

1 the usual 12 months, meaning that high-quality residents are here
 2 for the long haul.”

- 3 • Amanda McHugh, training and development manager of lessor Rockbridge Group,
 4 stated in a 2016 press release that Rockbridge’s adoption of RENTmaximizer allowed it
 5 to “take the guesswork out of pricing” and “eliminate[] all concessions and specials.”⁸⁵
 6 As a result, Rockbridge “achieved an average 48% increase in gross potential rent.”⁸⁶
- 7 • Ryan Kissell, controller of lessor Summit Management Services, stated in a 2012 press
 8 release that “RENTmaximizer’s automated pricing matrix has allowed us to eliminate
 9 concessions.”⁸⁷
- 10 • A February 5, 2014 article reports that the “revenues” of McCaffery Interests Inc., a
 11 Chicago-based real estate developer, “have been boosted by Yardi RENTmaximizer,
 12 which automates the process of calculating best rents.” In the article, Yvonne Jones,
 13 McCaffery’s managing director of asset and property management, stated:
 14 “RENTmaximizer has pushed our site teams to think more about pricing and occupancy.
 15 We’re pricing on a daily basis, whereas before we might have looked at pricing only
 16 quarterly and not adjusted to increased traffic coming to the property . . . We expect that
 17 by the end of 2013 we will increase our revenues by at least 2% by having
 18 RENTmaximizer in place.”⁸⁸

19 78. Finally, Landlord Defendants and Yardi appear to collectively monitor and
 20 enforce compliance with Yardi’s automated pricing. Specifically, Yardi promotional materials
 21 state that Yardi provides its RENTmaximizer users with “dedicated revenue managers” who

23 ⁸⁵ *Id.*

24 ⁸⁶ See *Rockbridge Group*, *supra* note 6.

25 ⁸⁷ *Yardi RENTmaximizer Gives Summit Management Services Inc. New Rental Pricing*
 26 *Insight*, Business Wire (Jan. 31, 2012), <https://www.businesswire.com/news/home/20120131006159/en/Yardi-RENTmaximizer-Gives-Summit-Management-Services-Inc.-New-Rental-Pricing-Insight>.

27 ⁸⁸ *McCaffery Interests Leverages Yardi’s Single-Platform Approach for Efficient Property*
 28 *Management*, FM Link (Feb. 5, 2015), <https://www.fmlink.com/articles/mccaffery-interests-leverages-yardis-single-platform-approach-for-efficient-property-management/>.

1 regularly meet and communicate with property managers regarding their pricing improvements
 2 advice to “maximize returns”⁸⁹:

3 Better Service

4
 5 You manage your business, we manage your pricing. Only Yardi
 6 provides you with a dedicated revenue manager with valuable industry
 7 experience along with your revenue management software. Your
 8 dedicated revenue manager will get to know your business processes,
 assets and goals to provide superior support and will work with you to
 maximize your returns. And as a RENTmaximizer client, you'll receive
 this service and training continuously to promote ongoing success.

9 79. Consistent with this, Terri Dowen, senior vice president of sales for Yardi, stated
 10 in a 2017 press release that “[p]roperty managers are guided to pricing that meets business
 11 goals, with the support of a dedicated revenue manager included with our solution.”⁹⁰

12 80. Similarly, CW 7, who worked at Yardi between 2019 and 2021 as a senior
 13 account executive, stated that Yardi provided revenue managers to each client that purchased
 14 RENTMaximizer, and working with a revenue manager did not cost extra. Yardi revenue
 15 managers “basically went through all your properties and rates” and “helped set some limits.”
 16 Yardi revenue managers met with clients monthly to conduct a “pretty thorough review” of how
 17 clients were using the product and whether it was working for them, CW 7 explained. Although
 18 the type of employee at the client company with whom Yardi revenue managers communicated
 19 varied based on the client, with larger clients, it was typically a revenue manager, CW 7 said.

20 81. Lessors have indicated in public statements that Yardi’s pricing advisors are
 21 intimately involved in their business operations. Noam Hameiri, senior vice president of
 22 operations at lessor DEELS Properties, stated in a 2018 article that “the extensive reporting and
 23 the weekly phone call with our dedicated RENTmaximizer expert are some of the best parts of
 24 the system.”⁹¹ Adam Goldfarb, vice president for lessor Manco Abbott, stated in a 2015 press
 25 release that “[h]aving a dedicated revenue manager working with us from the Yardi

26 89 *Yardi Multifamily Suite*, *supra* note 8.
 27 90 *Beztak Grows Rental Income with Yardi RENTmaximizer*, *supra* note 19.
 28 91 Hameiri, *supra* note 82.

1 RENTmaximizer team is a huge benefit. If our staff or property owners question any of our
 2 rates, we have our Yardi RENTmaximizer expert who can dig deeper to support our pricing —
 3 and that gives our organization and clients great confidence.”⁹² A 2016 press release describing
 4 lessor Singh Management’s use of RENTmaximizer likewise states that “[a]s part of using
 5 RENTmaximizer, Singh is provided a dedicated Yardi RENTmaximizer analyst. Regular
 6 meetings between the analyst and Singh’s onsite staff and regional managers provide expert
 7 insight and valuable advice where pricing improvements can be made.”⁹³

8 **B. Yardi and Landlord Defendants conspired to eliminate competition by outsourcing
 9 independent pricing and supply decisions to RENTmaximizer.**

10 82. In a competitive market, property managers in the multifamily market price rents
 11 independently based on their own assessment of how best to compete with other properties—for
 12 example, by offering concessions, specials, or otherwise lowering rents.

13 83. As Yardi has acknowledged, competitive pressures effectively affect strategies
 14 employed by owners to optimize income.⁹⁴ When demand fell during COVID-19, for example,
 15 “to maintain occupancy rates,” apartment owners employed strategies including “rolling over
 16 leases with no bump in rent and increasing use of concessions, mainly by offering periods of
 17 free rent.”⁹⁵ This emphasis on maintaining occupancy rates, instead of rental prices, makes
 18 economic sense because every day a unit is left empty is, in a competitive market, a financial
 19 loss to property owners.

20 84. In addition, without knowing their competitors’ pricing strategies, property
 21 management companies usually need to make a judgment call and set their prices within a range
 22 that optimizes their competitive position in attracting renters. Offering lower rates and

23 ⁹² *Manco Abbott Inc. Achieves Rental Growth, Gains Expert Pricing Insight with Yardi
 24 RENTmaximizer, supra note 14.*

25 ⁹³ *Singh Management Gains Revenue and Occupancy Growth with Yardi RENTmaximizer,*
 26 *Business Wire* (Feb. 23, 2016), [https://www.businesswire.com/news/home/20160223005007/
 en/Singh-Management-Gains-Revenue-and-Occupancy-Growth-with-Yardi-RENTmaximizer](https://www.businesswire.com/news/home/20160223005007/en/Singh-Management-Gains-Revenue-and-Occupancy-Growth-with-Yardi-RENTmaximizer).

27 ⁹⁴ Yardi Matrix, Bulletin, *The Rise and Fall of Concessions: Is the Market Resetting?* (Jan.
 28 2021), available at<https://www.yardimatrix.com/Publications/Download/File/1190-MatrixMultiFamilyConcessionsBulletin-January2021>.

29 ⁹⁵ *Id.*

1 concessions are among the most effective ways to win over the race. In other words, without
 2 collusion, a property manager could not unilaterally raise rents above market rates because
 3 doing so would result in tenants lost to competitors (who offered market rates). With collusion,
 4 however, this competition is avoided.

5 85. To lessen competition for renters, Yardi and Landlord Defendants came up a
 6 new strategy: collectively adopt a coordinated pricing software implemented and enforced by
 7 Yardi through RENTmaximizer. The software facilitates pricing collusion by—in the words of
 8 Yardi’s own senior vice president of sales, Terri Dowen—“eliminating rent rate guesswork and
 9 traditional sales devices such as concessions and specials,”⁹⁶ and consequently increasing prices
 10 for Landlord Defendants regardless of market conditions. What Ms. Dowen describes is the
 11 elimination of a pricing strategy characteristic of a competitive multifamily rental market.

12 86. Specifically, Landlord Defendants agree to provide their competitively sensitive
 13 data to RENTmaximizer with the understanding that such data will be shared with
 14 competitors.⁹⁷ Yardi also proudly advertises that its database provides nationwide “clear and
 15 comprehensive” metrics on “markets, submarkets, competition, developments, rents, occupancy
 16 and more.”⁹⁸ Such market-specific metrics then incorporate the data an individual
 17 RENTmaximizer user enters in the system, which enables Landlord Defendants to “accurately
 18 benchmark performance.”⁹⁹ As explained in a 2017 Yardi press release, with real-time access to
 19 competitors’ nonpublic data, Yardi RENTmaximizer “lets clients know their markets in real
 20 time, including how they compare with competing communities.”¹⁰⁰

21 87. This strategy also allows landlords to de-prioritize their traditional focus on
 22 maintaining occupancy rates, the hallmark of a competitive market. In a now-deleted 2014 post
 23

24 ⁹⁶ See *Rockbridge Group*, *supra* note 6.

25 ⁹⁷ As discussed below, CW 6 stated that all Yardi clients – or Voyager clients –
 26 contractually agree to share pricing and occupancy data with Yardi and to allow Yardi to use
 “aggregated data” as part of Matrix and RENTMaximizer.

27 ⁹⁸ *Yardi Elevate*, *supra* note 10.

28 ⁹⁹ *Id.*

29 ¹⁰⁰ *Beztak Grows Rental Income with Yardi RENTmaximizer*, *supra* note 19.

on Yardi's blog titled "Revolutionary Revenue," in which Yardi boasted about RENTmaximizer's market-beating results, Yardi recapped a July 2014 meeting at which Dharmendra Sawh (then Yardi's "principal for revenue management"):

addressed the Canadian Federation of Apartment Associations' Rental Housing Conference 2014 in Vancouver, British Columbia with an introduction to revenue management and opportunities for its use in Canadian markets. In September 10, he'll speak on a panel at the Canadian Apartment Investment Conference in Toronto, Ontario.

“In addition to government regulation, Canadian apartments are typically run with very high occupancy rates. It may require a change in mentality, but there are some real opportunities to realize rent gains with the use of a revenue management solution,”

88. Remarkably, Yardi's own promotional materials emphasize, as noted above, that Yardi allows RENTmaximizer users to "*beat the market.*" And more broadly, Yardi prominently advertises RENTmaximizer, and its automatic pricing algorithm, as a means to achieve supracompetitive rent growth. A 2017 promotional video states, for example, that "revenue grows on Yardi" and that (consistent with other marketing materials) clients using RENTmaximizer "have gained on average more than 6% net rental income growth"¹⁰²:

¹⁰¹ Leah Etling, *Revolutionary Revenue: Market Data Insight* (Aug. 27, 2014), The Balance Sheet: Yardi Corporate Blog, available at <https://web.archive.org/web/20140908043659/https://www.yardi.com/blog/news/revolutionary-revenue/11339.html> (emphasis added).

¹⁰² *Revenue Grows on Yardi: RENTmaximizer* (video), *supra* note 7.



89. While discovery will reveal the specific identities and roles of all relevant participants, Yardi has operated this scheme through high-ranking personnel, including Dharmendra Sawh, Yardi's "Industry Principal" for revenue management¹⁰³ and Terri Dowen, Yardi's senior vice president of sales. Both Sawh and Dowen heavily promoted RENTmaximizer and its impact on pricing and profitability for Landlord Defendants. According to CW 6, the sales team selling RENTmaximizer was a small group with little turnover and included, among others, Jeffrey W. Adler, Vice President of Yardi Matrix.

90. Lessors have publicly praised, consistent with Ms. Dowen's comments, the fact that Yardi liberates them from the traditional and legal forms of competition found in a competitive market (e.g., discounts and concessions) and allows them to raise prices. In other words, by agreeing to implement and abide by a single, common pricing algorithm that incorporates shared competitively sensitive information provided by Landlord Defendants, RENTmaximizer provides Landlord Defendants with the confidence, or "discipline," to inflate rents without fearing such pricing strategy would be undercut by competitors. For example:

¹⁰³ According to Mr. Sawh's LinkedIn profile, he is "[r]esponsible for the entire product launch of the new Revenue Management Product – RENTmaximizer" and provides "[s]trategic leadership in Product Management, Sales, Implementation, Training, Marketing." <https://www.linkedin.com/in/dhar-sawh-9a38543/>.

- 1 • In a 2017 press release, Sarah Oglesby-Battle, executive vice president of lessor
2 Beztak's management division, stated that "RENTmaximizer eliminates the fear factor
3 of exposure that is a natural concern for property and regional managers.
4 RENTmaximizer factors in historical and relevant data to assure us that we will get the
5 traffic and leases we need to meet our revenue goals."¹⁰⁴
- 6 • In a 2017 press release, lessor KRE Group stated that it used RENTmaximizer to price
7 three New Jersey properties, and that it "appreciate[d] that RENTmaximizer takes the
8 guesswork out of pricing and automates assessments using inventory and market
9 data."¹⁰⁵ Jason Segal, director of residential leasing for KRE Group, stated that before
10 using Yardi RENTmaximizer, "[t]here was always uncertainty about various factors
11 including holding units, leasing notice units and structural vacancy, which really
12 impacted the budget. With RENTmaximizer we have a tool to simplify those decisions
13 and validate rents."¹⁰⁶
- 14 • In a 2016 press release, Amanda McHugh, training and development manager of lessor
15 Rockbridge Group, stated that with RENTmaximizer, Rockbridge "ha[d] achieved an
16 average 48% increase in gross potential rent" and that "[t]hanks to RENTmaximizer, we
17 have eliminated all concessions and specials."¹⁰⁷
- 18 • In a 2015 press release, Philip Nored, owner and managing partner of Landlord
19 Defendant HNN Associates, LLC, stated that "RENTmaximizer has taken the
20 guesswork out of our rental pricing and lease terms, and boosts pricing performance
21 through an intelligent system of measurements, fixed factors *and discipline.*"¹⁰⁸

22
23

¹⁰⁴ *Beztak Grows Rental Income with Yardi RENTmaximizer*, *supra* note 19.

24 ¹⁰⁵ *KRE Group Grows Profits and Occupancy with Yardi RENTmaximizer*, Business Wire
25 (Mar. 14, 2017), <https://www.businesswire.com/news/home/20170314005389/en/KRE-Group-Grows-Profits-and-Occupancy-with-Yardi-RENTmaximizer>.

26 ¹⁰⁶ *Id.*

27 ¹⁰⁷ See *Rockbridge Group*, *supra* note 6.

28 ¹⁰⁸ *HNN Associates, LLC Optimizes Rental Pricing Performance with Yardi RENTmaximizer*, *supra* note 17 (emphasis added).

- In a 2015 press release, Brad Minsley, co-owner of lessor 10 Federal, stated that, with RENTmaximizer, 10 Federal had seen “3.5% rental income growth, and 30% or greater improvement in their lease terms,” and that “[t]hanks to RENTMaximizer we are signing new leases, our renewal rates are sustainable, and *we don’t have to offer concessions.*”¹⁰⁹
- In a 2015 press release, Scott Brown, president of lessor Grubb Properties, stated that RENTmaximizer “gives our ownership groups much more confidence. Our clients can view comprehensive reports with drilldown into their pricing movement, which ensures complete trust in the system.”¹¹⁰ He reported that “[b]y providing detailed and transparent [pricing] reporting, Yardi RENTmaximizer has also enabled us to save time and gain efficiency by eliminating weekly pricing calls with our owners.”
- Brantley White, president of lessor Ardmore Residential, announced in a 2016 press release that Ardmore Residential had raised rents 5-6% since its implementation of Yardi RENTmaximizer in 2016, and appreciated that “Yardi RENTmaximizer has allowed us to push rents more aggressively and takes more human error out of the process.”¹¹¹ He candidly acknowledged that “[w]e simply wouldn’t have raised rents that much or that quickly on our own.”¹¹²
- As noted above, Ryan Kissell, controller of Landlord Defendant Summit Management Services, stated in a 2012 press release that that “RENTmaximizer’s automated pricing matrix has allowed us to eliminate concessions.”¹¹³ The same press release states that

¹⁰⁹ *Id.* (emphasis added).

¹¹⁰ *Grubb Properties Maximizes Pricing, Achieves Longer Lease Terms with Yardi RENTmaximizer*, Business Wire (Dec. 1, 2015), <https://www.businesswire.com/news/home/20151201005433/en/Grubb-Properties-Maximizes-Pricing-Achieves-Longer-Lease-Terms-with-Yardi-RENTmaximizer>.

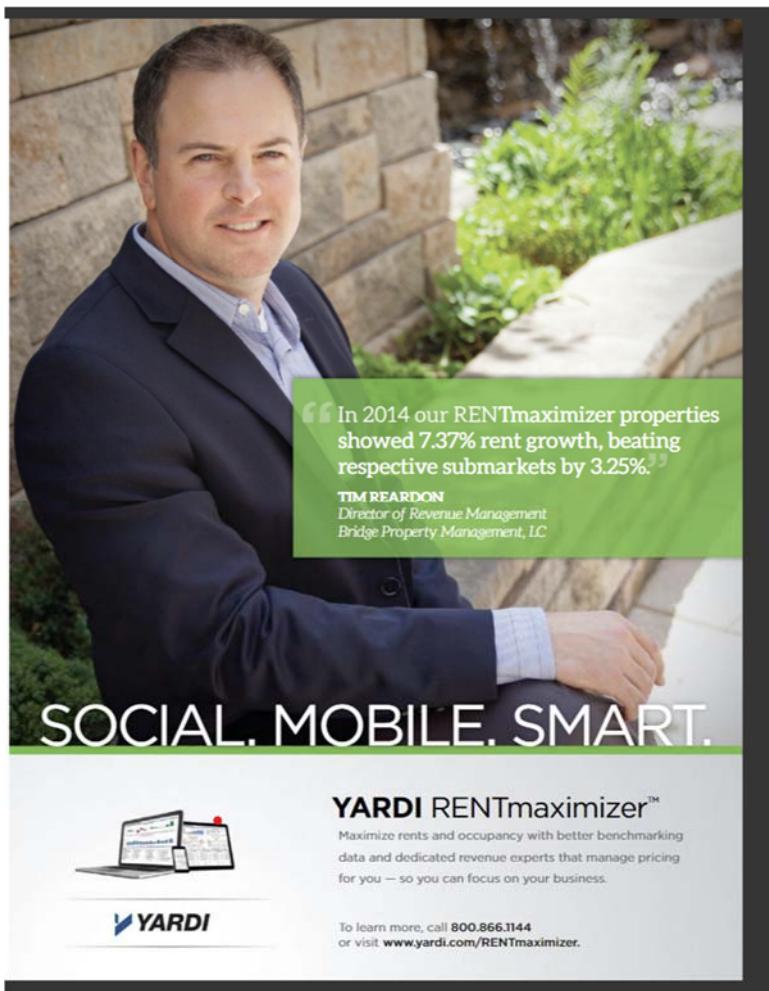
¹¹¹ *Ardmore Residential Raises Rents 5-6% with Yardi RENTmaximizer*, *supra* note 20.

¹¹² *Id.*

¹¹³ *Yardi RENTmaximizer Gives Summit Management Services Inc. New Rental Pricing Insight*, *supra* note 49.

1 Summit Management Services saw a revenue increase of 4.63% in the third quarter of
 2 2011 after the company adopted RENTmaximizer.¹¹⁴

3 91. Yardi and Defendant Landlords worked together to publicly advertise the success
 4 of RENTmaximizer at inflating prices, and to invite other Defendants to join their scheme. For
 5 example, the following advertisement by Yardi, featuring a quote from Defendant Landlord
 6 Bridge Property Management, appeared in a 2016 edition of the Multifamily Executive
 7 magazine, a publication specifically intended for employees at multifamily operators:



25 92. Lessors have also publicly praised (a) the insight into competitors' pricing that
 26 Yardi provides and (b) the suprarevenue returns it generates. Indeed, much of this praise is
 27

28 ¹¹⁴ *Id.*

1 found in numerous Yardi press releases touting its achievements in raising rents for their clients
 2 in the multifamily market. For example:

- 3 • In a 2016 press release, Jeffrey Denson, the owner and COO of Landlord Defendant
 4 Dalton Management, stated that Dalton Management was able to increase rent per unit
 5 without losing business to its competitors as “RENTmaximizer has . . . made Dalton
 6 Management better aware of how its properties compare to the rest of the market,”
 7 explaining further that Dalton was “able to raise rents at a property we thought was
 8 keeping up—now we’re getting \$100 more per unit and maintaining occupancy.”¹¹⁵
- 9 • A “success story” available on Yardi’s website states that lessor Avesta had seen “a
 10 significant gain [in revenue] after only six months” of implementing
 11 RENTmaximizer.¹¹⁶ Specifically, Avesta announced that for every dollar it invested in
 12 the RENTmaximizer system, it achieved a return of nearly \$30. The press release quotes
 13 Will Newton, Director of Support Systems at Avesta, as stating: “[T]hanks to the
 14 revenue and leasing metrics, along with the support of our dedicated Yardi
 15 RENTmaximizer pricing specialist, we don’t leave money on the table.”
- 16 • A 2016 press release states that lessor CKR Property Management saw substantial rental
 17 revenue growth as a result of adopting RENTmaximizer. The press release quotes
 18 Caroline Kane, CEO of CKR: “Overall, our rental revenue is up 8% year over year . . .
 19 one property that previously struggled is up 28%. Yardi RENTmaximizer had a lot to do
 20 with that success.”¹¹⁷
- 21 • According to a 2015 press release, Landlord Defendant Bridge Property Management
 22 reported that the company used RENTmaximizer to price “approximately 27,000

25 ¹¹⁵ *Dalton Management Reports Increased Revenue Using Yardi RENTmaximizer*, *supra*
 26 note 24.

27 ¹¹⁶ *Avesta*, *supra* note 25.

28 ¹¹⁷ *CKR Property Management Grows Rental Revenue with Yardi RENTmaximizer*, Business
 Wire (Oct. 27, 2016).

1 multifamily units,” and had reported 9.4% year-over-year rental income growth “for
 2 properties priced with Yardi RENTmaximizer.”¹¹⁸

- 3 • According to a 2016 press release, within five months of using RENTmaximizer, lessor
 4 Singh Management found that properties that implemented RENTmaximizer performed
 5 at “7% higher” than the properties in the portfolio not yet using the system, and “by the
 6 fifth month, they reached rental growth of 18.5%.”¹¹⁹
- 7 • Another “success story” available on Yardi’s website states that Landlord Defendant
 8 Pillar Properties’ use of RENTmaximizer “drive[s] higher revenue, manage[s] costs and
 9 balance[s] risk.”¹²⁰
- 10 • During a February 18, 2016 earnings call discussing Landlord Defendant Morguard’s
 11 Q4 2015 earnings, Senior Vice President John Talano, who is responsible for
 12 Morguard’s U.S. operations and oversees Morguard’s residential holdings, was asked
 13 whether Morguard was “still seeing pretty strong rental rate growth.” Talano responded:
 14 “yes, yes, absolutely. We implemented RENTmaximizer, which is a revenue modeling
 15 software and we’re monitoring that literally on a daily basis. Good strong rents growth
 16 in Florida, Atlanta, Dallas, Texas and in Colorado.” Elsewhere during the call, Talano
 17 stated that Morguard “experienced robust rent growth with smaller markets like
 18 Alabama and Louisiana experiencing 3% rent growth at the low end of the scale,
 19 compared to rent growth ranging 5% to 8% and [Morguard’s] more stronger markets in
 20 Florida and Colorado.”¹²¹

21
 22 ¹¹⁸ *Bridge Property Management Gains 9.4% Year-Over-Year Rental Growth with Yardi*
 23 *RENTmaximizer*, Business Wire (Sept. 29, 2015), <https://www.businesswire.com/news/home/20150929005288/en/Bridge-Property-Management-Gains-9.4-Year-Over-Year-Rental-Growth-with-Yardi-RENTmaximizer>.

25 ¹¹⁹ *Singh Management Gains Revenue and Occupancy Growth with Yardi RENTmaximizer*,
 26 *supra* note 93.

27 ¹²⁰ Yardi, *Success Stories – Pillar Properties on Elevate*, <https://www.yardi.com/about-us/success-stories/pillar-properties-on-elevate/> (last visited Sept. 7, 2023).

28 ¹²¹ See Morguard North American Residential Real Estate Investment Trust, Q4 2015
 Earnings Call (Feb. 18, 2016).

1 93. Confidential witness interviews provide further evidence that Landlord
 2 Defendants outsource their independent price decisions to RENTmaximizer and achieve
 3 supracompetitive returns as a result. For example:

- 4 • CW 1, who worked as a former leasing consultant for Bridge Property Management,
 5 stated that she regularly used Yardi to set prices for the apartments she managed.
 6 Specifically, she would input square footage of the apartment, the location, and Yardi's
 7 system would offer listing prices that she "just went for" without "question[ing],"
 8 explaining that she "[j]ust went with whatever it told me." She explained further that
 9 Yardi would show comparative pricing specific competitor apartment locations and that,
 10 in her opinion, this "was not fair for renters." She stated: "It was ridiculous. We were
 11 supposed to be helping these people who couldn't afford a home. Instead, we were
 12 raising rents."
- 13 • CW 2, another former employee at Bridge Property Management, recalled that he
 14 regularly received printouts from Yardi on apartment pricing, which he used in listings
 15 he created for the apartment complex he managed. CW 2 stated that the prices generated
 16 by Yardi were never questioned and could change daily. He also stated that this pricing
 17 practice gave "an unfair advantage" to lessors because they "all know what they should
 18 be renting for" by using the same pricing platform.
- 19 • Confidential Witness 3 ("CW 3")¹²², a former leasing agent at Bridge Property
 20 Management, explained that she frequently consulted Yardi's pricing recommendations
 21 to quote customers who applied for a rental. She stated that, in her time at Bridge, she
 22 never questioned the prices from Yardi—which came as daily printouts with prices that
 23 changed "daily"—and that "everybody was using it."
- 24 • Confidential Witness 8 ("CW 8"), who worked as a leasing specialist for Morguard,
 25 stated that Morguard utilized RENTmaximizer for apartment inventory and rent pricing.
 26 As a leasing specialist, CW 8 would run a daily printout from Yardi of available

27 ¹²² CW 3 worked for Bridge Property Management as a leasing agent in Marietta, Georgia,
 28 from 2018 until 2023.

1 apartment inventory and rent pricing. The pricing was automatically set by Yardi and
 2 fluctuated from day to day. Deviation from Yardi pricing required corporate override
 3 approval; CW 8 did not recall ever having to obtain approval for a rent price override
 4 during her tenure at Morguard.

5 94. Finally, on information and belief, RENTmaximizer users are aware that their
 6 competitors also use Yardi's price-setting software. CW 7, who worked at Yardi between 2019
 7 and 2021 as a senior account executive, explained that while Yardi's clients were "very
 8 concerned about sharing their rental rates more than anything," "[m]ost people appreciated the
 9 fact that if they shared data, they would get data from other clients using things like
 10 RENTMaximizer, so that everybody was benefitting from the data."

11 95. CW 5, who worked as an operations analyst at Yardi from 2013 to 2021, stated
 12 that she believed that many of Yardi's clients knew that their competitors or other companies
 13 were also using Yardi, and that some companies gave Yardi permission to disclose their
 14 relationship with it for marketing materials. (Consistent with this, as discussed throughout this
 15 Complaint, Yardi has issued a significant number of press releases touting lessors' use of
 16 RENTmaximizer, including their use of it to raise rents and eliminate concessions.) As
 17 discussed below, Landlord Defendants and Yardi also have numerous opportunities to collude
 18 at the Yardi Advanced Solutions Conferences (YASC) and social events. YASC is a large-scale,
 19 well-attended social event that is open to Yardi clients only.

20 96. Further, as detailed throughout this complaint, Yardi has long posted a continual
 21 stream of endorsements, press releases, and blog posts online touting RENTmaximizer's growth
 22 and numerous specific clients' success with it. Indeed, as discussed below (*see infra* Section D),
 23 Yardi employees (in a now deleted blog post from 2015) even wrote publicly about
 24 RENTmaximizer's unique success in raising rents in certain "*markets in which a significant*
 25 *number of properties use Yardi RENTmaximizer.*"

26 97. In summary, the widespread adoption of RENTmaximizer has distorted the
 27 multifamily rental market by artificially inflating prices and sharply lessening competition.
 28

1 C. **Yardi collects extensive data from landlords, including confidential pricing and
2 occupancy data, that it inputs into its “Yardi Matrix Multifamily” product—which
3 is then used to feed RENTmaximizer**

4 98. As noted above, Yardi advertises that it uses data from a separate product,
5 “Yardi Matrix,” as an input to RENTmaximizer:

M A R K E T I N T E L L I G E N C E

6 Yardi Matrix provides nationwide intelligence on markets, submarkets,
7 competition, developments, rents, occupancy and more. This data delivers
8 accurate indicators of economic trends and performance and helps you price
9 apartments profitably. When this market-specific data is incorporated with
10 your RENTmaximizer data, you can accurately benchmark performance and
11 factor it into rent projections and calculations which enhances your revenue
12 management strategy and helps boost the performance of individual assets.

13 99. In 2013, Yardi acquired the company Pierce-Eislen, which it described as “the
14 industry’s most comprehensive apartment market intelligence analysis system,” and rebranded
15 it “Yardi Matrix.”¹²³ Today, Yardi Matrix is a commercial real estate intelligence source that
16 “offers the industry’s most comprehensive market intelligence” and provides users with various
17 types of data about properties in certain markets, including rent and occupancy data.¹²⁴

18 100. Among other things, Yardi offers versions of its “Matrix” product for various
19 segments of the commercial real estate industry, including Yardi Matrix Multifamily (for
20 multifamily rental properties), Yardi Matrix Student (student rental properties), and Yardi
21 Matrix Office (office properties). Yardi explains that Matrix:

22 provides critical data to the professional property manager. Our
23 comprehensive property-level data makes it easy to benchmark
24 property performance, canvas competitors and neighborhoods and
25 find new contracts. Gain a valuable understanding of the nature and
26 performance of any portfolio of properties, using our powerful set
27 of research and comparative market analysis tools.¹²⁵

28 ¹²³ Yardi, *Yardi Rentmaximizer Property Ratings: Improvement and Location Rating System*, The Balance Sheet: Yardi Corporate Blog (Mar. 1, 2015), available at <https://web.archive.org/web/20170801195125/https://www.yardi.com/blog/uncategorized/yardirentmaximizer-property-ratings/12650.html>.

29 ¹²⁴ Yardi, *Yardi Matrix*, <https://www.yardimatrix.com/>.

30 ¹²⁵ Yardi, *Yardi Matrix: Real Estate Data & Comparative Analysis Tools*, <https://www.yardimatrix.com/Property-Types/Solutions/Management-Portfolio-Health> (last visited Nov. 1, 2023).

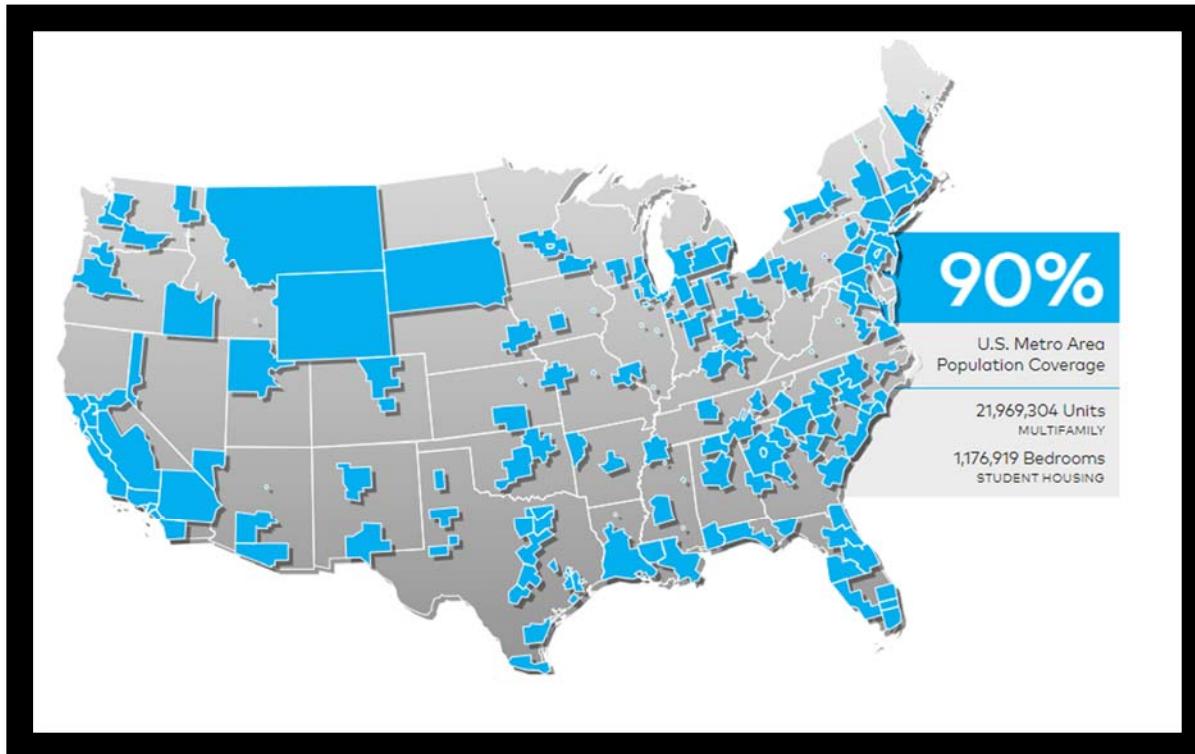
1 101. Yardi states that its property universe is the “largest and deepest refined database
 2 in the industry.”¹²⁶ According to a promotional video available on Yardi’s website, its “Matrix
 3 Multifamily” product “leverage[s] the most comprehensive apartment (>50 units) market data
 4 source covering 19+ million units, encompassing 90% of the U.S. Population”:



16 102. A map available on Yardi’s website underscores the extent of this nationwide
 17 coverage¹²⁷:

27 ¹²⁶ Yardi, *How We Compare*, <https://www.yardimatrix.com/About-Us/How-We-Compare>
 (last visited Nov. 1, 2023).

28 ¹²⁷ Yardi, *Yardi Matrix: Markets*, <https://www.yardimatrix.com/Markets>.



103. Specifically, subscribers to Matrix Multifamily receive “real-time property data”
 104. on rental rates and occupancy history, as well as short and long-range forecasts of rent and
 105. occupancy at the market and sub-market levels. Elsewhere online, Yardi touts that Matrix
 106. subscribers “access *near up-to-the-minute market information at two levels*: the individual
 107. property or overview of market conditions critical to the assessment of current, and prospective,
 108. market status” and describes Yardi’s “apartment information service” as “a high-performance
 109. system with the *sole function of supporting the commercial apartment industry’s dominant*
 110. *participants*”¹²⁸:

128 Yardi, *Yardi Matrix Rent Survey*, <https://yardirentsurvey.wordpress.com/> (last visited Nov. 1, 2023) (emphasis added).

1
2 **YARDI MATRIX'S Fall 2023 Rent Survey begins**
3 **Tuesday, September 5th!**

4 **About YARDI MATRIX**

5 Yardi Matrix, formerly known as Pierce-Eislen, Inc.®, was founded in March 2000 and acquired in
6 July 2013 by Yardi Systems, Inc., a Santa Barbara, California software company focused on
7 commercial real estate industry applications.

8 The Yardi Matrix apartment information service is a high-performance system with the sole
9 function of supporting the commercial apartment industry's dominant participants. The company's
10 services monitor the 50+ unit apartment universe from the property level to the submarket/market
11 level in a form unique within the commercial apartment information industry.

12 Yardi Matrix subscribers' access near up-to-the-minute market information at two levels: the
13 individual property or overview of market conditions critical to the assessment of current, and
14 prospective, market status. A more complete description of the company is provided under "About
15 Us" on our website at <https://www.yardimatrix.com>.

16 104. Other granular, unit specific data Yardi Matrix collects includes: (1) rental
17 history by unit type; (2) property characteristics – unit mix, unit sizes, photographs, prior sales;
18 (3) apartment properties currently under construction, or in the planning process; (4) property
19 sale history.¹²⁹ A view of the Yardi Matrix interface can be see below for a sample property¹³⁰:

20
21
22
23
24
25
26
27 ¹²⁹ Yardi Matrix Overview, <https://www.yardimatrix.com/About-Us/Press-Kit/Yardi-Matrix-Overview>.

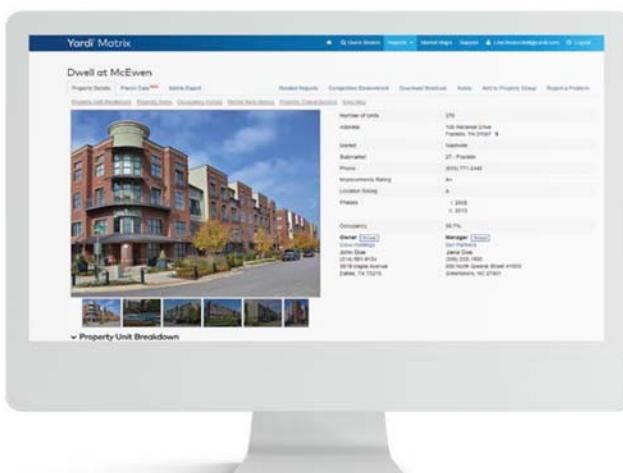
28 ¹³⁰ *Yardi Elevate*, *supra* note 10.

ACCURATE TRACKING

Track asset performance and the valuation of your properties—along with those of your competitors or potential partners. Our proprietary improvement and location ratings systems allow you to compare apples to apples—giving you fair and balanced performance information to act upon.

MARKET INSIGHTS

Whatever your role—asset management, acquisitions, refinance underwriting, valuations or sales—Matrix is your source for actionable information. Our renowned institutional research on markets, investment strategy and long-term trends is at your fingertips and included as a subscriber.

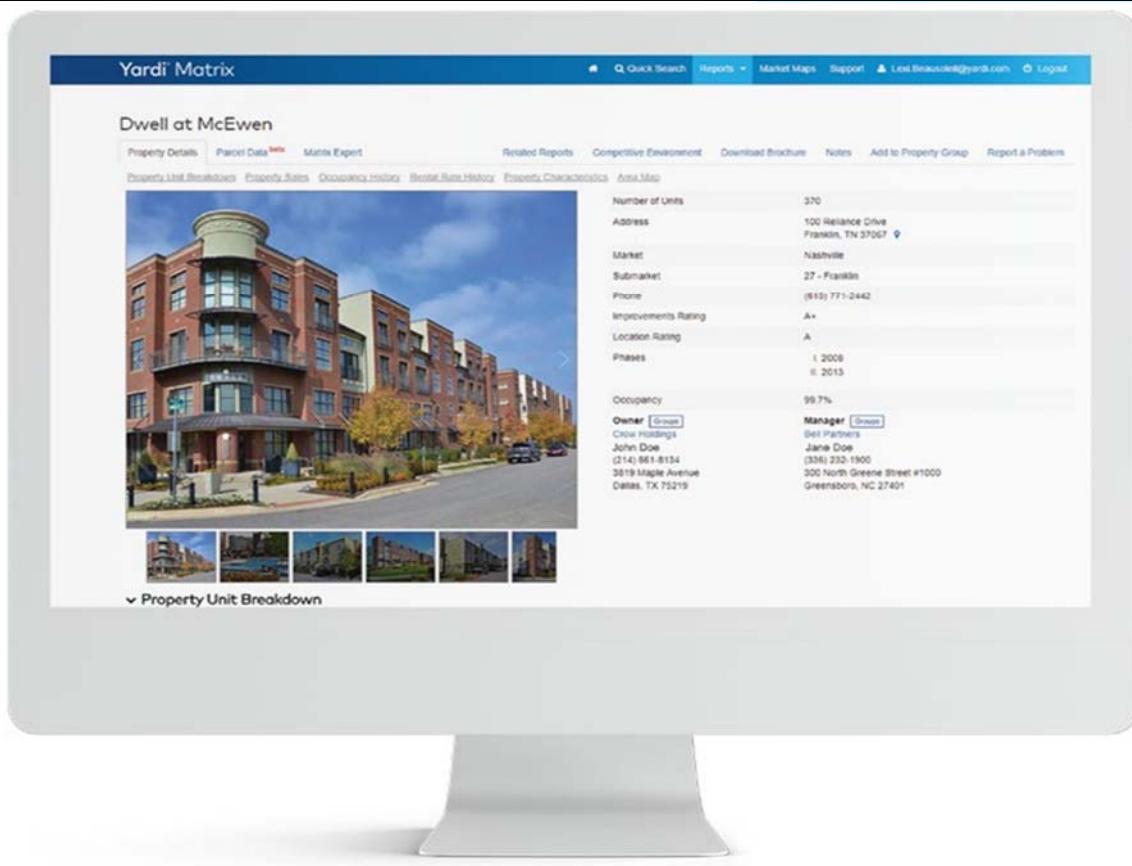


KEY FEATURES

- Full ownership and management information
- In-place loans; construction, permanent, CMBS and their expirations
- Aggregated and anonymized revenue and expense comps—an industry exclusive
- Patented property improvement and location ratings systems
- Full competitive analysis to similar properties near your asset
- Comprehensive market economic data including demographics, labor statistics and the construction pipeline
- Data-driven occupancy and long-range forecasts
- Cloud-based services and mobile access



Yardi | 11



HAGENS BERMAN
1301 Second Avenue, Suite 2000, Seattle, WA 98101
(206) 623-7292 OFFICE (206) 623-0594 FAX

105. Yardi prominently advertises the extensive amount of data available through
 2 Yardi Matrix¹³¹:

Multifamily Market Data and Analysis

Yardi® Matrix Multifamily is your source for originating, pre-underwriting and managing assets for profitable loans and investments. We are active in 178 Multifamily markets across the U.S., providing researched data on properties at least 50 units in size including exclusive data on single-family rentals in build-to-rent communities.

Key Features

- In place loans and expirations - construction, permanent and CMBS
- Full ownership and management information
- Complete property-level information, including detailed unit mix
- Rent, occupancy and sales history and comparables
- Patented improvements and location ratings systems
- Supply pipeline from end-to-end, planning to stabilization
- Short and long-range forecasts of rent and occupancy at the market and sub-market levels
- National coverage
- Competitive subscription pricing based on markets and users
- Exclusive data on single-family rentals in build-to-rent communities

FEATURES

YARDI MATRIX MULTIFAMILY

REAL-TIME PROPERTY DATA
Gain access to patented improvement and location ratings, rental rate, occupancy history and current property manager information.

LOAN DATA
Search for acquisition prospects by loan maturity schedules, lenders, borrowers, loan terms and estimated DSCR/LTV ratios.

TRENDS & FORECASTS
Stay current with monthly national reports, metro reports and quarterly forecasts of rental rates, rent growth and occupancy across markets and submarkets.

NEW SUPPLY PIPELINE
Get insight into new supply pipeline information at the asset, competitive set and market level.

MATRIX EXPERT
Access exclusive aggregated and anonymized residential revenue and expense comps.

 yardimatrix.com/multifamily | matrix@yardi.com or (480) 663-1149

YARDI | Energized for Tomorrow

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27 ¹³¹ Yardi Matrix Multifamily Brochure, available at
 28 https://www.yardimatrix.com/pdf/MultifamilyMarketCoverage/Matrix_Multifamily_brochure.pdf.

1 106. Yardi also emphasizes that it “does the heavy lifting—with extensive quality
 2 control—to compile property-level research that closes deals and drives value,” and advertises
 3 that users can get property unit breakdowns, sales and loan history, occupancy history, rental
 4 rate history for tens of thousands of properties¹³²:

5

6

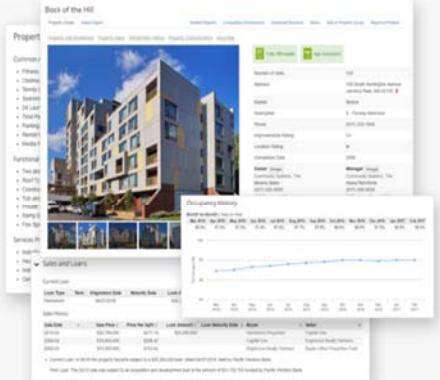
7 **Complete Property Research**

8 Matrix does the heavy lifting—with extensive quality control—to compile
 9 property-level research that closes deals and drives value. We save you
 time by unveiling the true ownership of LLCs and senior level contacts,
 abstracting all senior loans and continuously updating sales data.

10 Explore our Property Data

11

12



13 107. Yardi also takes pain to emphasize the granularity, standardization, accuracy,
 14 and “near real-time” quality of the data it makes available through Matrix is superior to that of
 15 “competitive services,” which it describes as generally providing stale, non-standardized, and
 16 incomplete information¹³³:

17

18 **Characteristics Defining Competitive Information Sources**

19 ■ Competitive services typically issue information in a batch format, thirty days following quarter-end, reflecting conditions at a point in time. Highly perishable
 20 information, already subject to functional obsolescence on the day of publication, continues to deteriorate in accuracy at an escalating rate from issuance date until
 the next publication date, ninety days later.

21 ■ Competitive information is non-standardized. Ability to manipulate required information to a specific need is limited to zip code, property size, or property age.
 Properties of similar type cannot be compared – a mongrel, and a thoroughbred racehorse are both categorized as “four-legged animals”.

22 ■ Services providing a market-overview, based on a market sample, are universally incomplete at the property level, if individual properties are referenced at all.

23 ■ Competitive information sources provide relevant data in “raw” form. Owners are listed as single-asset entities rather than the actual owner, and little contact
 information is made available.

24 ■ Competitive supplier rental rates and rental concessions are surveyed by telephone or printed survey as a research company; property management provides
 information in a form they choose to have reported. Rents reported are then provided as an average; anomalies from base rents – such as centrally metered utilities,
 + RUBS billing, or other advantages affecting base rents – are not considered.

25 108. Yardi obtains this extensive, granular data from at least two sources: (1) its
 26 clients, including users of its popular “Voyager” property management software; and (2) rent

27 ¹³² Yardi, *Multifamily Market Data and Analysis*, <https://www.yardimatrix.com/Property-Types/Multifamily> (last visited Nov. 1, 2023).

28 ¹³³ Yardi, *How We Compare*, <https://www.yardimatrix.com/About-Us/How-We-Compare> (last visited Nov. 1, 2023).

1 surveys conducted multiple times a year, during which Yardi analysts call millions of properties
 2 “play[ing] the role of renter” to inquire about rental rates.

3 109. **Client data.** According to CW 6, a senior account executive at Yardi from 2015
 4 to 2019, all Yardi clients – or Voyager clients – contractually agree to share pricing and
 5 occupancy data with Yardi and to allow Yardi to use “aggregated data” as part of Matrix and
 6 RENTMaximizer. “When you sign your contract with [Yardi], you agree to give your data,
 7 aggregated,” CW 6 explained. According to CW 6, Yardi then presents it to clients as data
 8 “within three miles” or “five miles” or “this is the average rental.”

9 110. CW 6 explained that clients provide Yardi with “[e]verything about your pricing,
 10 your occupancy, all that good stuff.” This data then gets housed in Matrix. CW 6 explained that
 11 client data is sent to Yardi “nightly.”

12 111. CW 6 further explained that RENTmaximizer and Yardi Matrix were sold
 13 together, and that “you have to have Matrix” to get data that feeds into RENTmaximizer and
 14 generates pricing recommendations. CW 6 also stated that Yardi is “the largest multi-family
 15 player out there” and has “all the data from all of their properties inside Matrix. And then
 16 somebody buys that data in the form of RENTMaximizer.”

17 112. In other words, Defendants provide information to Yardi Matrix with the
 18 understanding that, in part, they will receive pricing recommendations from RENTmaximizer
 19 that are based on Yardi Matrix data; they contractually agree to share pricing and occupancy
 20 data with Yardi and understand that aggregated data from Yardi Matrix is used as part of
 21 RENTmaximizer.

22 113. **Telephone surveys.** Yardi Matrix also conducts regular “rent surveys”
 23 (approximately twice a year) to collect current pricing information about rental properties. As
 24 part of these rent survey, Yardi employees, masquerading as potential renters, call apartment
 25 community buildings to collect information about rents and current rent specials. Yardi itself
 26 has acknowledged that information it collects from rent surveys are used in RENTmaximizer,
 27 stating that asking rent adjustments in RENTmaximizer are based, in part, on “public
 28 information collected through surveys.”

1 According to Yardi, Yardi Matrix “researches and compiles static and dynamic apartment
 2 market data specific to individual apartment properties, and to general apartment market
 3 conditions.”¹³⁴ Specifically, multifamily rental market conditions are surveyed at two levels:
 4 rental rates and concessions; and market occupancy.¹³⁵ Yardi explains that rental rates “are
 5 gathered as a prospective renter by telephone survey, then reported in both Actual, and Market
 6 Rate, formats.”¹³⁶ Yardi requires that all surveys be conducted as a potential renter to ensure the
 7 accuracy of information collected¹³⁷:

8 ***Surveys are Conducted as a Renter*** – Surveys must be conducted as a potential renter to
 9 ensure accuracy of information. This requires that you be willing to play the role of a renter.

10 114. Yardi also conducts surveys on rental promotional activity in the form of
 11 concessions annually, three times a year, by telephone survey among competitively rented
 12 (market/rate) properties of 50 units and larger in size.¹³⁸

13 115. Yardi has publicly stated in the past the data collected by its “analysts” is used in
 14 RENTmaximizer. A 2015 post on Yardi’s corporate blog explains:

15 “Blind shopping” is one way Yardi Matrix collects data to
 16 determine property values. Inquiring as prospects, analysts
 17 currently call on 9.4+ million units in 77 markets three times per
 18 year. This includes all properties over 50 units in specific markets,
 and we are expanding this to include 100 markets, covering 97% of

19 ¹³⁴ <https://www.yardimatrix.com/About-Us/Our-Methods>.

20 ¹³⁵ <https://www.yardimatrix.com/About-Us/Our-Methods/How-We-Report-Rental-Market-Conditions>.

21 ¹³⁶ “Actual rents” are the prices a property charges residents to occupy an apartment. Yardi
 22 Matrix then adjusts “actual rents” to “market rents” for an apples-to-apples comparison in
 23 reflecting the “the condition that apartment rental rates among floorplans of the same type.” *Id.*;
 24 *see also* Yardi, *How We Compare*, <https://www.yardimatrix.com/About-Us/How-We-Compare>
 25 (last visited Nov. 1, 2023) (“Rental rate information is surveyed by telephone, with surveyors
 26 soliciting information as renters. Current ‘street’ rents are reported, then illustrated as both
 27 ‘Actual’, and ‘Market’, rents. Market rents are converted – an apples-to-apples format,
 accounting for anomalies influencing rent paid beyond a ‘base’ rental rate”).

28 ¹³⁷ Yardi, *Yardi Matrix Rent Survey*, <https://yardirentsurvey.wordpress.com/> (last visited
 Nov. 1, 2023).

29 ¹³⁸ <https://www.yardimatrix.com/About-Us/Our-Methods/How-We-Report-Rental-Market-Conditions/How-We-Survey-Rental-Concessions>.

the United States population. We include this collection of actual rent information at the unit-type level as part of the standard Yardi RENTmaximizer reporting system.¹³⁹

116. A separate, now-deleted post from August 2014 on Yardi's blog likewise states:

Yardi RENTmaximizer™ users see an average 2 to 5 percent revenue lift over existing market rates. Recently, the ability to analyze portfolio or property performance comparative to the regional market performance has become even more powerful within the product platform.

“We’re now incorporating all the benchmark data from real estate intelligence provider Pierce-Eislen into the RENTmaximizer product,” shares Dharmendra Sawh, industry principal for revenue management at Yardi. “This allows our customers to see exactly what revenue gains they are achieving, not only at their own property, but in comparison to their regional market.”

Acquired by Yardi in 2013, Pierce-Eislen provides nationwide intelligence on markets, submarkets, competition, developments, rents, and more.¹⁴⁰

117. Landlord Defendants provide information to Yardi Matrix with the

understanding that, in part, they will receive pricing recommendations from RENTmaximizer that are based on this extensive Yardi Matrix data.

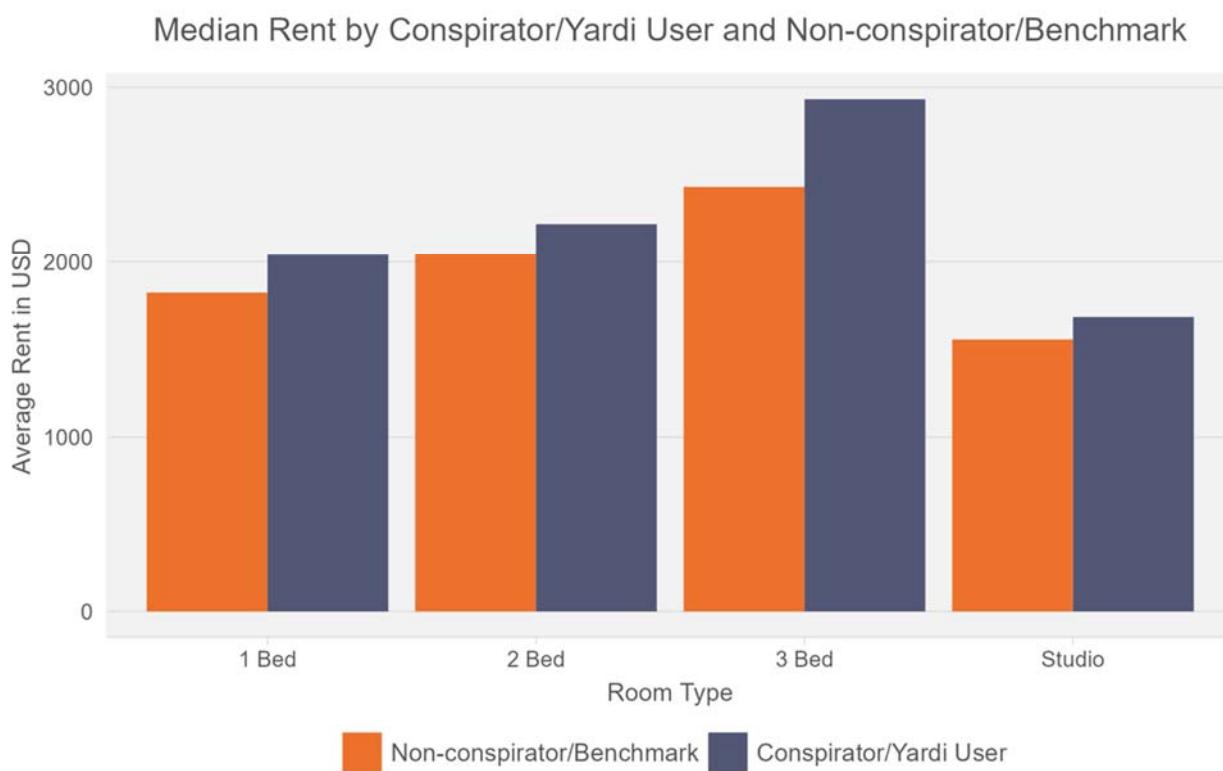
D. Economic analysis confirms that usage of Yardi produces anticompetitive effects in the form of higher prices for RENTmaximizer users.

118. Economic analysis confirms that collective usage of Yardi RENTmaximizer leads to higher prices. Public rent data was collected over a period of several weeks in August 2023 from Seattle, Charlotte, and Phoenix. A regression analysis was then performed in zip codes where usage of Yardi RENTmaximizer was higher than 15% of available units. The regression analysis controlled for various property and geographic features, such as (1) size of

¹³⁹ Yardi, *Yardi Rentmaximizer Property Ratings: Improvement and Location Rating System*, The Balance Sheet: Yardi Corporate Blog (Mar. 1, 2015), available at <https://web.archive.org/web/20170801195125/https://www.yardi.com/blog/uncategorized/yardi-rentmaximizer-property-ratings/12650.html>.

¹⁴⁰ Leah Etling, *Revolutionary Revenue: Market Data Insight* (Aug. 27, 2014), The Balance Sheet: Yardi Corporate Blog, available at <https://web.archive.org/web/20140908043659/https://www.yardi.com/blog/news/revolutionary-revenue/11339.html> (emphasis added).

1 the unit, (2) number of bathrooms, (3) census average rent in the zip code, and (4) median
 2 income in the zip code. Across over 23,000 units, the regression found an average overcharge of
 3 6% on units priced using RENTmaximizer (blue) as compared to units not priced using
 4 RENTmaximizer (orange), including for studio, 1-bedroom, 2-bedroom, and 3-bedroom
 5 apartments. This is closely consistent with Yardi's repeated public statements that usage of
 6 RENTmaximizer led to a 6% average increase in net rental income:



119. These findings are further corroborated by additional, detailed *analyses that*
Yardi itself performed. In a now-deleted March 1, 2015 post on Yardi's corporate blog, Yardi
 staff used rent data shopped from "more than 9.2 million units"—obtained through phone
 surveys performed by the then-recently acquired Pierce-Eislen (rebranded "Matrix")—"to
 compare RENTmaximizer properties' performance against their market, the submarket, and
 submarket-equivalent properties," and "analyzed properties on RENTmaximizer from the end of
 2012 through April 2014 and compared the aggregate performance of this 'same store sales'
 population against the market." Yardi's analysis found that "[a]t the end of April 2014,
 RENTmaximizer properties saw rental rates over 2% above the market" *even including*

“properties using other revenue management software,” with “[t]he markets [growing] at a combined rate of 3.9%, while RENTmaximizer properties outperformed the market and grew at nearly 6%”:



Figure 1: RENTmaximizer Results vs Market

120. Yardi also performed a separate analysis “for some markets in which a significant number of properties use Yardi RENTmaximizer” and found substantial above-market gains in many of these:

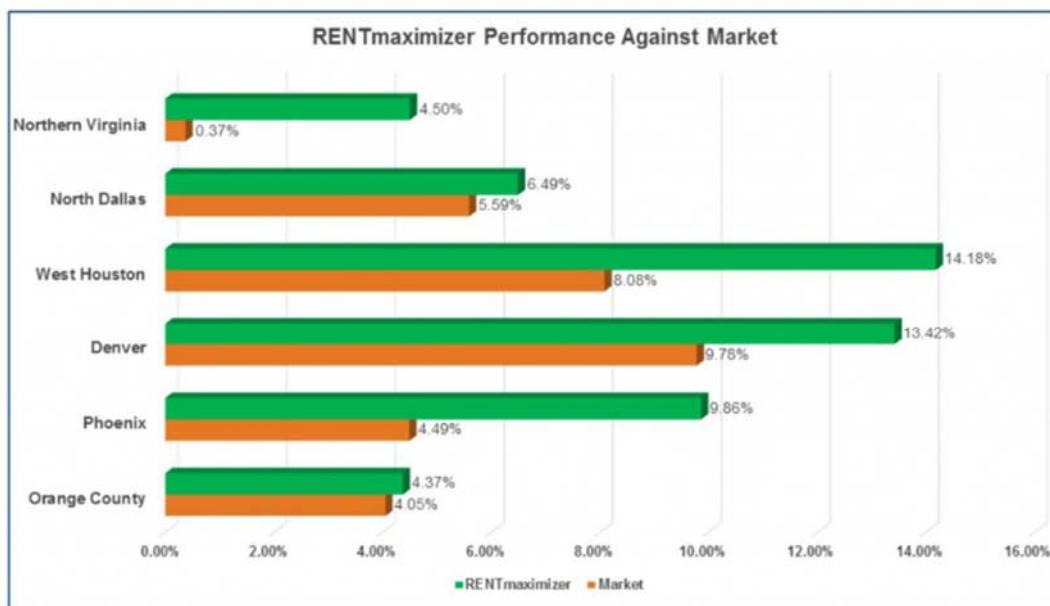


Figure 2: Selected Market Performance

1 121. Reflecting on these results, Yardi's staff remarked on the substantial above
 2 market gains in many of the markets above, and explicitly noted that in Orange County, where
 3 Yardi exceeded the competition only slightly, this was likely because "many more properties in
 4 this market use other revenue management systems":

5 Figure 2 above shows results for some markets in which a
 6 significant number of properties use Yardi RENTmaximizer.
 7 Denver, one of the top five "hottest" markets in 2013, saw a market
 8 rental growth of 9.8%, while the RENTmaximizer properties grew
 9 by almost 13.5%. RENTmaximizer customers exceeded the market
 by almost 3.7%. Similarly, the Houston market grew by 8% overall,
 while RENTmaximizer properties produced 14%—a 6% advantage
 for RENTmaximizer customers.

10 Another extreme example, the market in Orange County, California
 11 saw 4.05% growth while RENTmaximizer properties grew by
 12 4.37%. Orange County rental rates are very high compared to other
 13 markets, and many more properties in this market use other revenue
 management systems. Even this small increase above market using
 RENTmaximizer creates a significant income difference.¹⁴¹

14 122. In a conclusion to the post, Yardi staff wrote that "we now have *significant*
 15 *statistical proof that RENTmaximizer produces consistently better results than the market, and*
 16 *our customers tell us that we provide the best support in the industry . . . Yardi*
 17 *RENTmaximizer delivers better results, better service, and complete visibility into the 'health'*
 18 *of your property performance and how it drives your pricing results":*

19 Conclusion

20 Yardi RENTmaximizer has seen exponential adoption growth
 21 since it was introduced in 2011 and continues to prove itself in the
 22 market. The system's intuitive approach and transparent reporting
 make it easy for property teams to understand and accept its daily
 23 pricing methodology.

24 The August 2014 release of RENTmaximizer enables customers to
 25 compare the performance of each of their properties to its market,
 submarket, and submarket-equivalent properties. This reporting
 feature has become very popular with our customers, and we plan

26 ¹⁴¹ Yardi, *Yardi RENTmaximizer Market Analysis: 2013 Performance Results*, The Balance
 27 Sheet: Yardi Corporate Blog (Mar. 1, 2015), available at
<https://web.archive.org/web/20210302115856/https://www.yardi.com/blog/uncategorized/yardi-rentmaximizer-market-analysis/12670.html>.

1 to expand capabilities in this area in future releases of
 2 RENTmaximizer.

3 We now have significant statistical proof that RENTmaximizer
 4 produces consistently better results than the market, and our
 5 customers tell us that we provide the best support in the industry.
 6 Our service team of experienced revenue managers is included with
 7 the RENTmaximizer product. Yardi RENTmaximizer delivers
 better results, better service, and complete visibility into the
 “health” of your property performance and how it drives your
 pricing results.

8 **E. Defendants’ conduct has no pro-competitive benefits**

9 123. Defendants rent pricing scheme has not benefited competition. It has also not had
 10 pro-competitive effects in the multifamily housing rental market.

11 124. Instead, Defendants conduct has had the effect of benefitting them by increasing
 12 revenues and profits; meanwhile, consumers have subsidized this misconduct by paying
 13 artificially inflated prices for their rent.

14 125. While Defendants’ misconduct may have increased their operational efficiencies
 15 (e.g., by saving costs, time, or other resources associated with traditional methods of fair rent
 16 pricing), it has meanwhile made it more time-consuming and difficult for consumers to identify
 17 and secure meaningfully less expensive rental rates for comparable properties offered by
 18 Defendants’ co-conspirators.

19 126. Assuming any procompetitive benefits from Defendants’ misconduct exist, they
 20 would be minimal in nature and could not outweigh the substantial and anticompetitive effects
 21 of this misconduct.

22 **F. Studies show that industry-wide usage of a shared pricing algorithm leads to
 23 anticompetitive effects.**

24 127. Extensive economic research documents that the use of pricing algorithms leads
 25 to anticompetitive effects, including elevated prices. Modern algorithms can use artificial
 26 intelligence to reach the objective of maximizing profits without the need for human
 27 intervention. Indeed, legal scholars, economists, and antitrust regulators studying this issue have
 28

1 all concluded that competitors' use of a shared pricing algorithm to set prices produces the same
 2 types of anticompetitive effects alleged here.

3 128. In a May 2017 paper, "Algorithmic Collusion: Problems and Counter-
 4 Measures," competition law professors Ariel Ezrachi and Maurice Stucke discuss "how in an
 5 online environment a hub-and-spoke [price-fixing conspiracy] framework may emerge when
 6 sellers use the same algorithm or the same data pool to determine price." In particular they state
 7 that:

8 An industry-wide use of a single algorithm, which competitors use
 9 to determine the market price or react to market changes, would
 10 result in de-facto hub-and-spoke structure, as the market behavior
 11 of the competitors aligns due to the use of a similar "brain" to
 12 determine their price strategy. These effects intensify when sellers
 13 use the same data pool and are privy to vast volumes of data. Hub-
 14 and spoke structures may therefore be observed at the input level
 15 (data) and the output level (algorithm).¹⁴²

16 129. Ezrachi and Stuck note this situation playing out in connection with gas stations
 17 using the same third-party analytics provider to determine fuel prices. The professors conclude
 18 that "[t]his anecdotal example supports the assertion that as competitors use a single hub – a
 19 single provider for algorithmic pricing – one may expect, in markets susceptible to tacit
 20 collusion, greater alignment of pricing decisions and higher prices overall."

21 130. Consistent with this, a growing body of academic research documents that
 22 algorithms make it easier for competitors to coordinate on pricing and charge supracompetitive
 23 prices. For example, an experimental study published in the American Economic Review found
 24 that competing firms, using AI powered algorithmic pricing, would settle, over time, into an
 25 equilibrium model where each firm charged supracompetitive prices.¹⁴³ The result was robust to
 26 asymmetries in cost or demand, or changes in the numbers of players.

27 ¹⁴² Ariel Ezrachi and Maurice Stucke, *Algorithmic Collusion: Problems and Counter-*
 28 *Measures*, at 10, Roundtable on Algorithms and Collusion (June 2017), available at
<https://one.oecd.org/document/DAF/COMP/WD%282017%2925/en/pdf>.

29 ¹⁴³ Emilio Calvano et al., *Artificial Intelligence, Algorithmic Pricing and Collusion*, 110
 30 AM. ECON. REV. 3267-97 (Oct. 2020),
<https://www.aeaweb.org/articles?id=10.1257/aer.20190623>.

1 131. Similarly, a 2021 empirical study found (in line with the predictions of
 2 theoretical models, and with Ezrachi and Stucke's predictions) that when gas stations in
 3 Germany used algorithms to set prices, their margins increased by approximately 9%. Critically,
 4 the authors found that algorithm use only raised prices above competitive levels in places where
 5 competitors adopted algorithms jointly, and thus that "algorithmic pricing software adoption
 6 raises margins *only through its effects on competition*"; by contrast, in areas where (1) a station
 7 had no competitors or (2) there were two stations but only one adopted algorithmic pricing, the
 8 authors found "no change in mean margins or pricing."¹⁴⁴ In other words, algorithm use among
 9 these stations raised prices not by driving efficiency or achieving some procompetitive result,
 10 but instead by undermining normal market competition. The authors also note:

11 Algorithmic pricing can also affect competition if a single
 12 intermediary software provider sells their product to multiple
 13 competitors. Such adoption could lead to hub-and-spoke(where the
 14 provider acts as the hub of the sellers, Ezrachi and Stucke 2015) or
 15 parallel-use scenarios, with competitors coordinating to higher
 16 prices by delegating choices or relaying information to the same
 third party. These concerns are warranted by the statements and
 observed behaviour of software providers. Some providers promote
 their products by suggesting that they optimize for long-term
 revenues and avoid price wars.¹⁴⁵

17 132. Uber also sets prices algorithmically, which users recognize in now-regular
 18 occurrences of "surge pricing" where prices spike (often to eyewatering levels) at times of high
 19 demand. This algorithmic pricing leads to higher prices for customers and higher revenue for
 20 Uber, even though Uber's costs do not change significantly during the surge pricing periods. As
 21 one academic has noted, even though drivers are theoretically independent contractors who
 22 could compete against each other, each driver has "agreed to have their prices coordinated and
 23 set by the algorithm." This could constitute, as the author puts it, a "twenty-first-century[]

25 ¹⁴⁴ See Stephanie Assad et al., *Autonomous algorithmic collusion: Economic research and*
 26 *policy implications* at 15, Toulouse School of Economics Working Paper (Mar. 2021), available
 27 at https://www.tse-fr.eu/sites/default/files/TSE/documents/doc/wp/2021/wp_tse_1210.pdf
 (emphasis added).

28 ¹⁴⁵ *Id.* at 4.

1 techno-cartel.”¹⁴⁶ Areeda and Hovenkamp also state that a “practice of interseller price
 2 verification . . . would appear to be a naked or at least a nearly naked restraint” in violation of
 3 antitrust law.¹⁴⁷

4 133. Government regulators around the world have also expressed concerns about
 5 algorithmic pricing’s effect on competition.

6 134. Earlier this year, for example, the Principal Deputy Assistant Attorney General
 7 of the Antitrust Division for the Department of Justice stated: “Where competitors adopt the
 8 same pricing algorithms, our concern is only heightened. Several studies have shown that these
 9 algorithms can lead to tacit or express collusion in the marketplace, potentially resulting in
 10 higher prices, or at a minimum, a softening of competition.”¹⁴⁸

11 135. Similarly, as noted above, while serving as acting chairman of the Federal Trade
 12 Commission, Maureen Ohlhausen explained in 2017 how multiple firms outsourcing pricing
 13 decisions to a single third-party actor—just as lessors have done with Yardi—raises significant
 14 antitrust concerns, and asked rhetorically: “Is it ok for a guy named Bob to collect confidential
 15 price strategy information from all the participants in a market, and then tell everybody how
 16 they should price? If it isn’t ok for a guy named Bob to do it, then it probably isn’t ok for an
 17 algorithm to do it either.” Ohlhausen emphasized: “this is fairly familiar territory for antitrust
 18 lawyers, and we even have an old fashioned term for it, the hub-and-spoke conspiracy. Just as
 19 the antitrust laws do not allow competitors to exchange competitively sensitive information
 20 directly in an effort to stabilize or control industry pricing, they also prohibit using an
 21 intermediary to facilitate the exchange of confidential business information.”¹⁴⁹

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 25 ¹⁴⁶ Salil K. Mehra, *Antitrust and the Robo-Seller: Competition in the Time of Algorithms*,
 100 MINN. L. REV. 1323-75 (2015).

26 ¹⁴⁷ Herbert Hovenkamp & Phillip E. Areeda, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST
 27 PRINCIPLES AND THEIR APPLICATION ¶ 2113 (4th and 5th Ed. 2018-2022).

28 ¹⁴⁸ U.S. Dep’t of Justice, *supra* note 31.

28 ¹⁴⁹ Ohlhausen, *supra* note 32.

1 136. Yardi here plays exactly the role of a guy named Bob. It collects price
 2 information from each of the Landlord Defendants, and then tells them, through use of its
 3 algorithm, how to price multifamily housing.

4

5 **G. Parallel conduct and “plus factors” indicate an existence of a price-fixing
 6 conspiracy.**

7 137. As set forth in detail above, Defendants engaged in multiple forms of parallel
 8 conduct including (1) entering into agreements to use RENTmaximizer and using
 9 RENTmaximizer during the same periods of time; (2) each using pricing adjustments provided
 10 by RENTmaximizer with the understanding that usage would produce artificially inflated
 11 prices; and (3) each implementing significant rental price increases after beginning their usage
 12 of RENTmaximizer, as shown in the numerous press releases issued by Yardi trumpeting
 13 Defendants’ higher rental prices after implementation of RENTmaximizer.

14 138. In addition, the multifamily market has numerous “plus factors” that render the
 15 industry susceptible to collusion and tend to exclude the possibility of independent action.
 16 These “plus factors” include (1) exchanges of competitively sensitive information, (2) actions
 17 against economic self-interest, (3) high barriers to entry, (4) fungible products subject to
 18 inelastic consumer demand; (5) high switching costs; (6) ample opportunities to collude; and (7)
 19 a related government investigation into similar conduct by RealPage, which makes competing
 20 software (“YieldStar”).

21 1. **Exchanges of competitively sensitive information**

22 139. Landlord Defendants all agreed to submit their confidential business information
 23 to Yardi RENTmaximizer with the knowledge that the system would use that data to calculate
 24 rents for their competitors. Such an agreement of mutual sharing and receiving competitors’
 25 information makes sense for Landlord Defendants only if they are assured that their competitors
 26 will not use the information provided to gain competitive advantage, i.e., lure renters away
 27 through reduced rents. As CW 7, who worked at Yardi between 2019 and 2021 as a senior
 28 account executive, explained: while Yardi’s clients were “very concerned about sharing their

1 rental rates more than anything,” “[m]ost people appreciated the fact that if they shared data,
 2 they would get data from other clients using things like RENTMaximizer, so that everybody
 3 was benefitting from the data.”

4 140. Moreover, confidential witness interviews revealed that Landlord Defendants
 5 regularly engaged in “market surveys” to exchange each other’s competitively sensitive pricing
 6 information. For example, CW 1, a former leasing consultant for Bridge Property Management,
 7 stated that she regularly conducted market surveys by “shopping” other apartment complexes,
 8 where she would gather information on pricing. Similarly, CW 2, another former employee at
 9 Bridge Property Management, recalled that he would call competitors complexes and asked
 10 their leasing agents for rent prices.

11 141. Confidential Witness 9 (“CW 9”), a former employee at HNN Communities in
 12 Seattle, stated that she regularly did market surveys of pricing of competitors’ buildings. CW
 13 stated that she would call competitors and ask them for pricing information, stating “it was
 14 common for neighboring properties to share information.”

15 142. Yardi itself understands that its clients engage in this kind of market research
 16 through direct communications with competitors that is then incorporated into the rent
 17 adjustments that RENTmaximizer provides. Yardi itself states that RENTmaximizer may
 18 incorporate into its rent adjustments “asking rents for comparable properties that the client
 19 selects,” which may include data that “come[s] from the client’s own research.”

20 **2. Actions against economic self-interest.**

21 143. Defendants’ pricing strategy—dramatically increasing rents notwithstanding
 22 market conditions—is irrational and against self-interest in a competitive market. In the absence
 23 of changes in demand, no rational property managers would act alone to raise rents as they did
 24 here during the class period, because any empty units priced exceeding the competitive market
 25 price would soon be filled by competitors who offer renters at lower prices.

26 **3. High barriers to entry**

27 144. Where there are significant barriers to entry, new entrants are less likely to enter
 28 the market. Thus, barriers to entry help to facilitate the formation and maintenance of a

1 collusion. This holds true here. Property owners and operators face significant entry barriers due
 2 to the substantial upfront costs they need to invest in procuring properties, setting up property
 3 management systems, complying with regulations and incurring continued outlays for property
 4 upkeep. Even relatively modest rental properties require substantial investments. As a result, the
 5 multifamily leasing market is less attractive to new entrants, and businesses who just entered the
 6 market are less likely to be able to discipline cartel pricing.

7 145. In addition to building and acquisition costs, developing and maintaining a
 8 multifamily rental housing property takes years. Thus, entrants into the market are unlikely to
 9 discipline cartel pricing in the short or medium term.

10 **4. Fungible products subject to inelastic consumer demand.**

11 146. With an accounting of a few key overarching property characteristics, such as
 12 bedroom and bathroom count, amenities, location, and building age, residential properties in the
 13 multifamily housing market are generally interchangeable. This is especially true because the
 14 information exchanged by Landlord Defendants through RENTmaximizer is unit-type specific
 15 and relates to properties with comparable configurations; thus, the fact that multifamily
 16 properties in general have various characteristics does not bear on the ability of Landlord
 17 Defendants to coordinate rents through RENTmaximizer. Through the RENTmaximizer pricing
 18 algorithm and “dedicated revenue managers” who regularly meet and communicate with
 19 property managers, RENTmaximizer lets competitors know and respond in real time to one
 20 another’s price.

21 147. Additionally, renters’ demand for renting multifamily homes is inherently
 22 inelastic. In most instances, despite price increases, renters still choose to live within certain
 23 geographic locations, such as somewhere close to their offices, schools, communities, and the
 24 only practicable alternative – purchasing a home – is neither financially nor logically possible
 25 for many renters. Thus, because Landlord Defendants dominated the relevant market during the
 26 Class Period, renters generally have limited realistic alternatives to discipline Defendants’
 27 pricing.

1 **5. High switching costs**

2 148. The market for multifamily rental housing also has high switching costs. Faced
 3 with a rent increase, many tenants are forced to remain in their current property due to the
 4 prohibitively high costs in time and money associated with moving, even if a better-priced
 5 alternative is available (e.g., locating an alternative place to live, costs associated with moving,
 6 disruptions to personal and work life). Further, many renters are subject to penalties for early
 7 termination of a lease (e.g., forfeit of a security deposit or the requirement that the tenant pay
 8 rent until the property is re-rented) that make switching even more difficult and/or cost-
 9 prohibitive.

10 149. As a result, it is difficult for renters to switch from one rental unit to another
 11 even if their current unit is priced at a supracompetitive level. This enhances landlords' power,
 12 and makes collusion more effective, because customers will not typically break their leases to
 13 enter a lease for a lower cost property given the substantial cost of doing so. Further, where
 14 price increases occur throughout geographic areas (as they do when landlords enter a cartel)
 15 renters often do not have any lower-priced options available in reasonable proximity to their
 16 work, school, or home. Renters thus cannot simply turn to alternative lessors in their region to
 17 discipline cartel pricing.

18 **6. Ample opportunities to collude**

19 150. Landlord Defendants and Yardi have numerous opportunities to collude at the
 20 Yardi Advanced Solutions Conferences (YASC) and social events. YASC is a large-scale, well-
 21 attended social event that is open to Yardi clients only.¹⁵⁰ Confidential Witness 4 (CW 4),¹⁵¹ a
 22 former senior event specialist at Yardi, stated that YASC "is attended by about 2,000 people

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 27 ¹⁵⁰ <https://www.yardi.com/yasc/north-america/> (last visited Sept. 7, 2023).

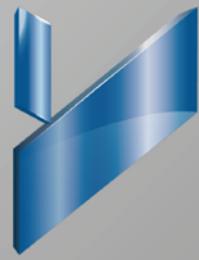
28 ¹⁵¹ From 2018 to 2022, CW 4 held various positions at Yardi, including as an account
 manager and event specialist in marketing.

1 each time, who pay to participate.”¹⁵² Consistent with this, a post on Yardi’s LinkedIn page
 2 boasts that the 2022 YASC, held in San Diego, “welcome[d] 3,000 Yardi clients.”¹⁵³

3 151. According to CW 4, the convention includes training sessions and panel
 4 discussions, but is mostly a “networking event.” YASC provides a designated “networking
 5 lounge” for attendees to meet with others who work in the same specialized areas in real estate.
 6 Consistent with this, the conference agenda for the 2015 YASC conference prominently
 7 advertises that it presents “networking opportunities” as well as a “personalized expert advice”
 8 in a “networking lounge” where attendees can have “one-on-one discussions with Yardi’s
 9 product experts”:

26 ¹⁵² The ticket price for attending YASC North America is \$1,195 USD.
 27 <https://www.yardi.com/yasc/north-america/> (last visited Sept. 7, 2023).

28 ¹⁵³ See https://www.linkedin.com/posts/yardi_welcome-to-yasc-2022-activity-6970800896951676928-sqog/?trk=public_profile_like_view#.



YASC '15

Yardi Advanced Solutions Conference

TUESDAY, OCTOBER 6

Golf Outing	12:30 p.m. (shotgun start)		
Registration	2	-	6 p.m.

WEDNESDAY, OCTOBER 7

Registration Desk	7	-	10 a.m.
Continental Breakfast	7:30	-	8:30 a.m.
General Session	8:30	-	9:30 a.m.
Spotlight Sessions	9:45	-	10:45 a.m.
Hospitality Desk	10 a.m.	-	6 p.m.
Computer Lab	9:30 a.m.	-	6 p.m.
Internet Café	9:30 a.m.	-	6 p.m.
Morning Sessions	11 a.m.	-	noon
Lunch	noon	-	1:15 p.m.
Afternoon Sessions	1:15	-	5 p.m.
Networking Reception	5:30 p.m.	-	9 p.m.

THURSDAY, OCTOBER 8

Hospitality Desk	7 a.m.	-	5 p.m.
Computer Lab	7:30 a.m.	-	5:30 p.m.
Internet Café	7:30 a.m.	-	5:30 p.m.
Breakfast	7:30	-	8:30 a.m.
Morning Sessions	8:30 a.m.	-	noon
Lunch	noon	-	1:15 p.m.
Afternoon Sessions	1:15	-	5 p.m.
Cocktail Reception	6	-	7 p.m.
Gala Dinner and Entertainment	7	-	11 p.m.

FRIDAY, OCTOBER 9

Hospitality Desk	7:30 a.m.	-	noon
Computer Lab	7:30 a.m.	-	noon
Internet Café	7:30 a.m.	-	noon
Breakfast	7:30	-	8:30 a.m.
Morning Sessions	8:30 a.m.	-	noon

COURSE FORMAT

With 60 minute-long sessions, you can register for up to 14 sessions throughout the conference to get the most value for your time and money. We have classroom sessions, roundtables, and panel discussions to give you the information you need to keep your business social, mobile, and smart.

INTRODUCING THE YASC APP!

We've created a new app designed just for YASC. Use it to download course materials, complete your session evaluations, and view or change your class selections—you can even monitor YASC social feeds during the conference! Once course materials are available, registered attendees will receive a unique login to manage conference resources on the go from any Apple or Android mobile device.

NETWORKING OPPORTUNITIES

Make valuable connections with your industry peers from around the world—as well as with Yardi staff and consultants—during the kick-off cocktail reception, dinner gala, or one of the full breakfasts, gourmet lunches, and snack breaks.

HANDS-ON EXPERIENCE

Reinforce newly acquired skills with hands-on experience in our on-site lab, which offers assistance with all products, SQL scripting and reporting, and the opportunity to engage in one-on-one discussions with Yardi's expert account managers and technical staff. For lab hours, refer to the conference schedule.

PERSONALIZED EXPERT ADVICE

The Networking Lounge is your opportunity for one-on-one discussions with Yardi's product experts.

Considering making the switch to Voyager 7S? Let your sales rep walk you through the steps you'll take to move to our most advanced property management platform. Already have Voyager 7S? You'll probably be interested in the various add-on modules that expand the Voyager feature set to cover your business from the back office to the field.

SOCIAL MEDIA SOLUTIONS

The Social Media Lounge is the go-to place for help analyzing your company's social media strategy. Talk to one of our social media gurus about optimizing your online presence, reputation management, and so much more. The Lounge is available throughout most of the conference, so drop by and say hi!

1 152. Previous YASC conference agendas indicate that Yardi provides
 2 RENTmaximizer trainings at these yearly conferences. For example, the 2015 YASC
 3 conference agenda included two separate RENTmaximizer-specific trainings:

4
 5 **RM020**

6 Yardi RENTmaximizer

7 Learn about Yardi's approach to rental pricing, enabling you to
 8 realize the full benefits of revenue management systems. We will
 9 cover pricing methodology and term-based pricing, which allow
 10 freedom of choice while optimizing lease terms to smooth out
 11 expirations. This trends-based approach to pricing also allows
 12 you to recover costs and increase revenue using rules you define.

13
 14 **RM210***

15 Getting the Most out of RENTmaximizer



16 This session will cover best-practice settings for a wide range
 17 of areas including lease renewal pricing and the various
 18 options you have available to you. In addition we will cover
 19 demand indicators to give you an understanding of what
 20 may work best for your organization. Lastly, you will learn
 21 about new and little-known RENTmaximizer features.

22
 23 153. Similarly, the 2019 YASC conference agenda includes a training on "getting the
 24 most out of RENTmaximizer" as well as a "RENTmaximizer overview" session:

1 Wednesday, May 22

2	CM075	Yardi Elevate Retail Manager: Introduction	8:30 - 8:55 a.m.
3	CM090	Yardi Elevate Forecast Manager for Commercial: Introduction	9 - 9:25 a.m.
4	TE060	Document Management for SharePoint	9 - 9:25 a.m.
5	JC020	Yardi Elevate Construction Manager for Commercial: Introduction	9:45 - 10:10 a.m.
6	CH020	Corporate Housing: Overview	9:45 - 10:10 a.m.
7	eL040	eLearning: Introduction	10:15 - 10:40 a.m.
8	RM030	Yardi Elevate for Multifamily: Introduction	10:15 - 10:40 a.m.
9	CM063	Yardi Elevate Deal Manager for Commercial: Introduction	11 - 11:25 a.m.
10	RM070	Yardi Matrix for Residential	11 - 11:25 a.m.
11	CM020	Yardi Elevate for Commercial: Introduction	11:30 - 11:55 a.m.
12	P2P050	Procure to Pay Demo	12:0 - 1:45 p.m.
13	EU060	IoT & Smart Homes ♦	12:0 - 1:45 p.m.
14	P2P040	Bill Pay Overview	1:50 - 2:15 p.m.
15	EU062	Success Stories: Utility Invoice Processing & Benchmarking ♦	1:50 - 2:15 p.m.
16	IM010	Why Use Investment Management? ♦	2:30 - 2:55 p.m.
17	KT020	RENTCafé Connect & Call Automation ♦	2:30 - 2:55 p.m.
18	IM020	Investment Management New Features: Performance Analysis & Debt Management ♦	3 - 3:25 p.m.
19	RM040	ScreeningWorks Pro: Introduction	3 - 3:25 p.m.
20	CM080	Yardi Elevate Asset Intelligence for Commercial: Introduction ♦	4 - 4:25 p.m.
21	RM030	Yardi Elevate for Multifamily: Introduction	4 - 4:25 p.m.
22	EU045	Yardi Pulse for Commercial: Introduction ■	4:30 - 4:55 p.m.
23	RM020	RENTmaximizer Overview	4:30 - 4:55 p.m.

Thursday, May 23: Morning

8:30 - 9:30 a.m. Session 13

AC131	Voyager Bank Reconciliation
AC210	Account Trees: Introduction
AC320	GL Allocations
RES80	SSRS Basics for Developers
RE170	Custom Financial Analytics: Introduction
TE215	System Administration Toolbox
TE360	Voyager Standard Interfaces Overview
eL340	Advanced Authoring Tools & Techniques in Yardi eLearning
RT110	New York Roundtable O
IM200	Investment Management: Introduction
MM330	Maintenance: Work Order Advanced Features ♦
CM180	Tax & Insurance
EU150	Energy Management for Multifamily ♦
RM210	Getting the Most out of RENTmaximizer
RM160	ResidentShield Renters Insurance •
KT140	RENTCafé for Residents
AF231	Converting to TRACS 203A
AF201	Affordable Housing Best Practices
AF060	RENTCafé Affordable Housing Roundtable ♦
PH161	Basic MTW Configuration

154. It is likely that personnel from named Landlord Defendants and/or their co-conspirators have attended certain of these conferences. Indeed, a November 2017 post on co-conspirator ALCO Management's website recounts a panel at the 2017 YASC during which

1 Dana Patterson, Senior Vice President of Operations at ALCO, recounted that ALCO uses
 2 RENTmaximizer:

3 On the panel were Dana Patterson, director of asset management at
 4 ALCO Management, Maria Braun, ERP business analyst at Bigos
 5 Management and Lisa Friedman, database coordinator at HCA
 6 Management Services. Aaron Wells, the Yardi client services team
 7 leader for BI, moderated.

8 ...
 9

10 Patterson explained that ALCO also uses Yardi RENTmaximizer
 11 for revenue management, Yardi Payment Processing for electronic
 12 transactions and RENTCafé for marketing, leasing and online
 13 resident services. The addition of Orion to its Voyager platform
 14 combines all of that operational and ancillary services data to
 15 deliver powerful analytics across its portfolio.¹⁵⁴

16 155. Senior Yardi employees have also specifically advertised RENTmaximizer at
 17 industry conferences and touted, among other things, its ability to de-prioritize landlords'
 18 traditional focus on maximizing occupancy. As noted above, a now-deleted 2014 post on
 19 Yardi's corporate blog recounts that Dharmendra Sawh, then Yardi's "principal for revenue
 20 management," had addressed the Canadian Federation of Apartment Associations' Rental
 21 Housing Conference and was scheduled to speak on a panel at the Canadian Apartment
 22 Investment Conference not long afterwards as part of RENTmaximizer's then-recent entry into
 23 the Canadian market:

24 RENTmaximizer is also entering new global markets, and is now
 25 available for apartment owners and managers in Canada. Though
 26 regulations applied to Canadian rental real estate have often
 27 stymied use of revenue management products there in the past,
 28 things are beginning to change.

29 In July, Sawh addressed the Canadian Federation of Apartment
 30 Associations' Rental Housing Conference 2014 in Vancouver,
 31 British Columbia with an introduction to revenue management and
 32 opportunities for its use in Canadian markets. In September 10,
 33 he'll speak on a panel at the Canadian Apartment Investment
 34 Conference in Toronto, Ontario.

35 ¹⁵⁴ *The Benefits of BI*, Alco Management (November 8, 2017),

36 <https://www.alcomgt.com/blog/2017/11/08/the-benefits-of-bi/>.

1
2 “In addition to government regulation, Canadian apartments are
3 typically run with very high occupancy rates. It may require a
4 change in mentality, but there are some real opportunities to realize
5 rent gains with the use of a revenue management solution,” Sawh
6 said.¹⁵⁵

7 156. Further, relevant Yardi personnel serve in industry trade associations and appear
8 at trade association events. For example, Vice President of Yardi Matrix Jeffrey Adler is a
9 Board Member of the National Multifamily Housing Council (NMHC).¹⁵⁶ Yardi promotes its
10 products at NMHC events; for example, a 2021 press release notes that Yardi “is a top-tier
11 Chairs Circle Sponsor” of the NMHC’s “OPTECH” conference and maintains a booth at the
12 event with demos of its products. The same press release quotes Terri Dowen, Yardi’s senior
13 vice president of sales, as stating: “It will be great to interact face-to-face again with industry
14 peers at NMHC OPTECH. The Yardi team looks forward to demonstrating how we incorporate
15 user input and trends into technology solutions that set the standard for innovation, connection
16 and operational improvement.”¹⁵⁷

17 157. Finally, Yardi revenue managers have regular contact with RENTmaximizer
18 clients to directly help property managers with pricing and keep up to date on their competitors.
Further, property managers also call competitor properties to directly obtain pricing information
from them on a regular basis.

19 **7. Related government investigation.**

20 158. Federal antitrust regulators are reportedly investigating virtually identical
21 conduct by Yardi competitor RealPage, which is facing a related lawsuit in the Middle District
22 of Tennessee based on allegations that RealPage’s YieldStar pricing algorithm “works by

23
24 ¹⁵⁵ Leah Etling, *Revolutionary Revenue: Market Data Insight* (Aug. 27, 2014), The Balance
Sheet: Yardi Corporate Blog, available at
<https://web.archive.org/web/20140908043659/https://www.yardi.com/blog/news/revolutionary-revenue/11339.html> (emphasis added).

25 ¹⁵⁶ <https://www.yardimatrix.com/About-Us/Key-Management/Jeff-Adler>.

26 ¹⁵⁷ Yardi, *Yardi Spotlighting Multifamily Solutions at NMHC OPTECH*,
<https://www.yardi.com/news/press-releases/yardi-spotlighting-multifamily-solutions-at-nmhc-optech/> (last visited Nov. 3, 2023).

1 collecting information from property managers who are the company's clients, including what
 2 rents they are able to charge tenants," information "fed into an algorithm that then recommends
 3 prices daily for each available apartment."¹⁵⁸ This is almost precisely the same as the conduct
 4 alleged here.

5 159. Specifically, according to the November 23, 2022 article,

6 The Department of Justice's Antitrust Division has opened an investigation into
 7 whether rent-setting software made by a Texas based real estate tech company is
 8 facilitating collusion among landlords, according to a source with knowledge of
 9 the matter. The inquiry is being launched as questions have arisen about a 2017
 10 merger between RealPage and its largest pricing competitor.¹⁵⁹

11 160. The investigation followed three letters from Congressional leaders to the DOJ

12 and FTC pushing for such an investigation:

13 The letters raised concerns that RealPage's pricing software could be pushing rents
 14 above competitive levels and allowing big landlords to coordinate their pricing in
 15 violation of federal antitrust laws.

16 "We are concerned that the use of this rate setting software essentially amounts to
 17 a cartel to artificially inflate rental rates in multifamily residential buildings," three
 18 senators said in a letter in early November.¹⁶⁰

19 161. The same article also notes that RealPage has defended its conduct by stating,
 20 among other things, that "its software helps reduce the risk of collusion that would occur if
 21 landlords relied on phone surveys of competitors to manually price their units."¹⁶¹ Remarkably,
 22 this is precisely the collusion that Yardi facilitates by using data collected through extensive
 23 phone surveys (as part of which Yardi employees falsely identify themselves as potential
 24 renters) as an input to the RENTmaximizer pricing algorithm.

25 162. Most recently, on October 12, 2023, the Department of Justice filed a notice in
 26 the RealPage action stating that the United States "has a particularly substantial interest in
 27 addressing the proper application of Section 1 of the Sherman Act, 15 U.S.C. § 1, to the use of

28¹⁵⁸ Heather Vogell, *Department of Justice Opens Investigation Into Real Estate Tech Company Accused of Collusion with Landlords*, ProPublica (Nov. 23, 2022), <https://www.propublica.org/article/yieldstar-realpage-rent-doj-investigation-antitrust>.

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

1 algorithms by competitors to help set pricing. Companies' use of algorithms in price setting,
 2 often in an effort to increase pricing, has become more prevalent in the modern economy. As a
 3 result, the issues involved in this case are of increasing significance to the application of
 4 antitrust law across the economy.”¹⁶² The Department of Justice has indicated that may file a
 5 potential Statement of Interest in that case by November 15, 2023.

6 V. RELEVANT MARKET

7 163. Defendants' actions described herein constitute a single unlawful conspiracy to
 8 fix, raise, stabilize, or maintain the nationwide multifamily rental prices at artificially high
 9 levels, and is *per se* illegal under the Sherman Act. This agreement was evidenced by Landlord
 10 Defendants' reciprocal exchange of competitively sensitive information through Yardi and
 11 outsourced their independent price decisions to a common decision maker.

12 164. Because of the horizontal nature of the alleged conspiracy, and because the
 13 conduct alleged here increased prices and reduced output, if the Court declines to analyze this
 14 case under the per se rule, the Court could conduct a “quick look” review. Under either mode of
 15 analysis, Plaintiffs are not required to prove that Defendants had market power in any defined
 16 antitrust market.

17 165. To the extent the Court decides to engage in the rule of reason analysis, the
 18 relevant product market is the multifamily housing rental market, and the relevant geographic
 19 market is the United States.

20 166. Consumers do not consider housing available for purchase as substitutes for
 21 multifamily rental apartment units because, among other reasons, purchase of real estate
 22 requires a substantial financial investment for a down payment that often requires financing. In
 23 addition, the short-term nature of leases is not equivalent to long-term permanent purchasing.
 24 Nor is single-family real estate considered an economic substitute for multifamily residential
 25 real estate, because of amenities, security, and availability.

26
 27 ¹⁶² See United States' Notice of Potential Participation (ECF No. 599), *In re: RealPage*
 28 *Rental Software Antitrust Litigation (No. II)*, Case No. 3:23-MD-3071 (Oct. 12, 2023).

167. The multifamily rental market satisfies the test for market definition used by federal antitrust enforcement agencies, widely known as the “SSNIP test.” The test asks whether a hypothetical monopolist in a proffered market could profitably impose a small but significant (typically 5%), non-transitory increase in price (a “SSNIP”), without causing a sufficient number of customers to switch to other products or services such that the SSNIP would be unprofitable to the monopolist. If the SSNIP is profitable, the market is properly defined. If the SSNIP is not profitable, the market is too narrowly defined, and does not encompass sufficient economic substitutes.

168. Here, the SSNIP test is satisfied, and the market is properly defined. As described above, pursuant to the Landlord Defendants' agreement not to compete on price, Landlord Defendants are able to gain (according to Yardi) "on average more than 6% net rental income growth,"¹⁶³ yet those increases have not driven enough renters out of the market such that the SSNIP has become unprofitable to Landlord Defendants.

VI. CLASS ACTION ALLEGATIONS

169. Plaintiffs bring this action on behalf of themselves and all others similarly situated pursuant to Federal Rules of Civil Procedure 23(a) and 23(b)(3) as representatives of the Class, which is defined as follows:

All persons and entities in the United States that leased multifamily housing in the United States from a landlord that used Yardi's RENTmaximizer or Revenue IQ software programs, or from a division, subsidiary, predecessor, agent, or affiliate of such Defendant or Conspirator, at any time during the period of September 8, 2019, until the Defendants and Conspirators' unlawful conduct and its anticompetitive effects cease to persist.

170. The Class is so numerous that joinder of all members in this action is impracticable. There are thousands of members in the proposed Class.

171. Plaintiff's claims are typical of those of the Class.

¹⁶³ Yardi Multifamily Suite, *supra* note 8.

1 172. Plaintiffs and members of the Class were all injured by the same unlawful
 2 conduct, which resulted in all of them paying more for leases than they otherwise would have in
 3 a competitive market.

4 173. Plaintiffs will fairly and adequately protect and represent the interests of the
 5 Class. The interests of the Plaintiffs are not antagonistic to the Class.

6 174. Questions of law and fact common to the members of the Class will predominate
 7 over questions, if any, that may be individual to individual class members, since the Defendants
 8 have acted and refused to act on grounds generally applicable to the Class.

9 175. Questions of law and fact common to the Class include:

- 10 a. Whether Defendants have entered into a formal or informal contract,
 combination, conspiracy, or common understanding to artificially inflate
 the price and/or artificially suppress the supply of multifamily housing
 real estate leases;
- 11 b. If Defendants entered into such a formal or informal contract,
 combination, conspiracy, or common understanding, whether that
 conduct violates Section 1 of the Sherman Act under the per se, quick
 look, or rule of reason modes of analysis;
- 12 c. If Defendants entered into such a formal or informal contract,
 combination, conspiracy, or common understanding, whether that
 conduct has in fact artificially inflated price and/or artificially suppressed
 supply of multifamily housing real estate leases from competitive levels;
- 13 d. The proper measure of damages; and
- 14 e. The contours of appropriate injunctive relief to remediate the
 anticompetitive effects of the challenged conduct in the future.

15 176. Plaintiffs and members of the Class are represented by counsel who are
 16 experienced and competent in the prosecution of complex antitrust and unfair competition class
 17 actions.

18 177. Class action treatment is the superior method for the fair and efficient
 19 adjudication of the controversy in that, among other things, such treatment will permit a large
 20 number of similarly situated persons or entities to prosecute their common claims in a single
 21 forum simultaneously, efficiently, and without the unnecessary duplication of effort and
 22 expense that numerous individual actions would engender. The benefits of proceeding through
 23 the class mechanism, including providing injured persons or entities with a method of obtaining
 24

1 redress for claims that might not be practicable for them to pursue individually, substantially
 2 outweigh any difficulties that may arise in the management of this class action.

3 **VII. CAUSES OF ACTION**

4 **FIRST CLAIM FOR RELIEF**

5 **VIOLATION OF SECTION 1 OF THE SHERMAN ACT**
 FOR AGREEMENT IN RESTRAINT OF TRADE (HUB AND SPOKE CONSPIRACY)
 6 **15 U.S.C. § 1**

7 **(On Behalf of Nationwide Class for Injunctive and
 Equitable Relief and Compensatory Damages)**

8 178. Plaintiffs incorporate and reallege, as though fully set forth herein, each and
 9 every allegation set forth in the preceding paragraphs of this Complaint.

10 179. Beginning in 2011, Defendants engaged in a continuing contract, combination,
 11 or conspiracy to unreasonably restrain interstate trade and commerce in violation of Section 1 of
 12 the Sherman Act, 15 U.S.C § 1.

13 180. The contract, combination, or conspiracy alleged herein has consisted of a
 14 continuing agreement among Defendants to use Yardi's pricing algorithms to artificially inflate
 15 price in the nationwide market for multifamily rental housing. This combination, generally
 16 known in antitrust law as a hub and spoke conspiracy, consists of a combination of (1) a set of
 17 vertical agreements between Defendants and Yardi that implement Yardi's revenue
 18 management program and (2) a horizontal agreement amongst all Defendants to use Yardi's
 19 revenue management program.

20 181. The contract, combination, or conspiracy alleged herein has caused Plaintiffs and
 21 Class members to suffer overcharge damages.

22 182. There are no procompetitive justifications for the Defendants' cartel, and any
 23 proffered justifications, to the extent legitimate, could have been achieved through less
 24 restrictive means.

25 183. Defendants' conspiracy is a *per se* violation of Section 1 of the Sherman Act. In
 26 the alternative, Defendants' conspiracy violates section 1 of the Sherman Act under either a
 27 quick look or rule of reason analysis.

**SECOND CLAIM FOR RELIEF
VIOLATION OF SECTION 1 OF THE SHERMAN ACT
FOR AGREEMENT IN RESTRAINT OF TRADE (SET OF VERTICAL
AGREEMENTS) 15 U.S.C. § 1**

**(On Behalf of Nationwide Class for Injunctive and
Equitable Relief and Compensatory Damages)**

184. Plaintiffs incorporate and reallege, as though fully set forth herein, each and every allegation set forth in the preceding paragraphs of this Complaint.

185. Beginning in 2011, Defendants engaged in a continuing contract, combination, or conspiracy to unreasonably restrain interstate trade and commerce in violation of Section 1 of the Sherman Act, 15 U.S.C § 1.

186. The contract, combination, or conspiracy alleged herein has consisted of a set of vertical agreements between Defendants and Yardi for each Defendant to use Yardi's pricing algorithms to set prices for multifamily rental housing. Sets of vertical agreements are actionable as an overall combination under antitrust law, and are analyzed under the rule of reason.

187. Each individual agreement between a Defendant Landlord and Yardi in isolation had the anticompetitive effect of artificially inflating prices for multifamily rental housing for that Defendant Landlord.

188. In the aggregate, the set of vertical agreements between Defendants Landlords and Yardi artificially inflated prices in the relevant market of multifamily rental housing in the United States. In particular, as a result of the vertical agreements, competitor Defendant Landlords each delegated pricing to a centralized third party, Yardi, with the understanding that Yardi revenue management software would inflate the rents that they collectively charged.

189. The contract, combination, or conspiracy alleged herein has caused Plaintiffs and Class members to suffer overcharge damages.

190. There are no procompetitive justifications for the Defendants' cartel, and any proffered justifications, to the extent legitimate, could have been achieved through less restrictive means.

191. Defendants' conspiracy violates section 1 of the Sherman Act under either a quick look or rule of reason analysis.

**THIRD CLAIM FOR RELIEF
VIOLATION OF SECTION 1 OF THE SHERMAN ACT
FOR CONSPIRACY TO EXCHANGE COMPETITIVE INFORMATION
15 U.S.C. § 1**

**(On Behalf of Nationwide Class for Injunctive and
Equitable Relief and Compensatory Damages)**

192. Plaintiffs incorporate and reallege, as though fully set forth herein, each and every allegation set forth in the preceding paragraphs of this Complaint.

193. Beginning in 2011, Defendants and their co-conspirators entered into a continuing agreement to regularly exchange detailed, timely, competitively sensitive, and non-public information about their operations. This agreement is an unreasonable restraint of trade in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1.

194. Defendants' acts in furtherance of their combination or conspiracy were authorized, ordered, or done by their officers, agents, employees, or representatives while actively engaged in the management of Defendants' affairs.

195. Defendants' anticompetitive acts involved United States domestic commerce and import commerce, and had a direct, substantial, and foreseeable effect on interstate commerce by raising and fixing prices for multifamily real estate leases.

196. The relevant product market is the market for the lease of multifamily real estate and the relevant geographic market is nationwide.

197. Defendants possess market power in the relevant antitrust market.

198. Defendants could impose an increase in the price of leases collectively without causing many consumers to switch their purchases to another lease. Leases constitute a unique product market.

199. The information regularly exchanged by Defendants pursuant to the agreement has consisted of detailed, competitively sensitive, and non-public information about current supply, production, and pricing plans regarding leasing.

1 200. Landlord Defendants' regular information exchanges through Yardi reflected
 2 concerted action between horizontal competitors in the market for leases. In particular, Landlord
 3 Defendants understood that information they provided would be incorporated into Yardi Matrix
 4 and also used, in aggregated fashion, to provide pricing recommendations through
 5 RENTmaximizer.

6 201. Each Landlord Defendant furnished competitively sensitive information to other
 7 leasing companies with the understanding that it would be reciprocated in the form of pricing
 8 recommendations that utilized that data. These reciprocal exchanges of information between
 9 Landlord Defendants constituted a horizontal exchange of information.

10 202. The collective agreement to regularly exchange detailed and non-public
 11 information about current production, supply, and pricing of leases suppressed competition
 12 between the Defendants.

13 203. When Defendants that are competing for the same consumers exchange
 14 competitive information, it reduces the incentives to compete on price. Accordingly, Defendants
 15 used the data obtained through Yardi RENTmaximizer to reduce the uncertainty that they each
 16 should have faced from not knowing what their competitors were offering and providing in the
 17 leasing market. This strategic information was a material factor in Defendants' decisions to
 18 inflate the prices that Plaintiffs and Class members paid for leases during the Class Period.

19 204. Defendants' unlawful agreements to exchange, and the actual exchanges of non-
 20 public, timely, and detailed data were not reasonably necessary to further any procompetitive
 21 purpose. The information exchanged between Defendants was current, easily traceable to its
 22 source, confidential, and related to a core characteristic of competition between them.

23 205. The information-exchange agreement has had the effect of (1) reducing and
 24 suppressing competition among Defendants in the nationwide multifamily market, and (2)
 25 inflating the prices of leases during the Class Period.

26 206. As a result of Defendants' unlawful conduct, Plaintiffs and the members of the
 27 Class have been harmed by being forced to pay inflated prices for leases.

207. As a direct and proximate result of Defendants' anticompetitive conduct, Plaintiffs and members of the Class have been injured in their business or property and will continue to be injured in their business and property by paying more for leases than they would have paid and will pay in the absence of the conspiracy.

208. This horizontal agreement to exchange information constitutes a violation of Section 1 of the Sherman Act under a rule of reason analysis.

REQUEST FOR RELIEF

WHEREFORE, Plaintiffs, on behalf of themselves and the Class of all others so similarly situated, respectfully request judgment against Defendants as follows:

A. The Court determine that this action may be maintained as a class action under Rule 23(a), (b)(2), and (b)(3) of the Federal Rules of Civil Procedure, appoint Plaintiffs as Class Representatives and their counsel of record as Class Counsel, and direct that notice of this action, as provided by Rule 23(c)(2) of the Federal Rules of Civil Procedure, be given to the Class, once certified;

B. The unlawful conduct, conspiracy, or combination alleged herein be adjudged and decreed in violation of Section 1 of the Sherman Act;

C. Plaintiffs and the Class recover damages, to the maximum extent allowed under the applicable laws, and that joint and several judgments in favor of Plaintiffs and the members of the Class be entered against Defendants in an amount to be trebled to the extent such laws permit;

D. Defendants, their affiliates, successors, transferees, assignees and other officers, directors, partners, agents, and employees thereof, and all other persons acting or claiming to act on their behalf or in concert with them, be permanently enjoined and restrained from in any manner continuing, maintaining, or renewing the conduct, conspiracy, or combination alleged herein, or from entering into any other conspiracy or combination having a similar purpose or effect, and from adopting or following any practice, plan, program, or device having a similar purpose or effect;

E. Plaintiffs and the members of the Class be awarded pre- and post-judgment interest as provided by law, and that such interest be awarded at the highest legal rate from and after the date of service of this Complaint;

F. Plaintiffs and the members of the Class recover their costs of suit, including reasonable attorneys' fees, as provided by law; and

G. Plaintiffs and the members of the Class have such other and further relief as the case may require and the Court may deem just and proper.

JURY TRIAL DEMANDED

Plaintiffs demands a trial by jury, pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, of all issues so triable.

DATED: November 3, 2023

HAGENS BERMAN SOBOL SHAPIRO LLP

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